

THE  
**SOUTHERN AGRICULTURIST.**

DECEMBER, 1828.

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**PART I.**

ORIGINAL CORRESPONDENCE.

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**ART. I.**—*On the Management of the BUTLER Estate, and the Cultivation of the Sugar Cane; by R. KING, jr. addressed to WILLIAM WASHINGTON, Esq.*

[COMMUNICATED FOR THE SOUTHERN AGRICULTURALIST.]

Hampton, (near Darien,) 13th Sept. 1828.

*Dear Sir:*—Your letter of the 29th August came to hand on the 8th inst. Nothing would afford me more satisfaction than to impart the little knowledge I possess of Southern Agriculture and plantation economy, if such would benefit others.

We are dependent on each other, and each should contribute his mite. Therefore, I shall comply with your request as minutely as possible.

The reputed good condition of the Butler Estate, has been the work of time, and a diligent attention to the interest of said estate, and the comfort and happiness of the slaves on it.

To Mr. R. King, sen'r. more is due than to myself. In 1802, he assumed the management. The gang was a fine one, but was very disorderly, which invariably is the case when there is a frequent change of managers. Rules and regulations were established, (I may say laws,) a few forcible examples made, after a regular trial, in which every de-

gree of justice was exhibited, was the first step. But the grand point was to suppress the brutality and licentiousness practiced by the principal men on it; (say the drivers and tradesmen.) More punishment is inflicted on every plantation by the men in power, from private pique, than from a neglect of duty. This I assert as a fact; I have detected it often. No person of my age, knows more the nature of these persons than myself; since childhood I have been on this place, and from the age of eighteen to this time, have had the active management; therefore I speak with confidence. They have a perfect knowledge of right and wrong. When an equitable distribution of rewards and punishments is observed, in a short time they will conform to almost every rule that is laid down.

The owner or overseer knows, that with a given number of hands, such a portion of work is to be done. The driver, to screen favourites, or apply their time to his own purposes, imposes a heavy task on some. Should they murmur, an opportunity is taken, months after, to punish those unfortunate fellows for not doing their own and others tasks. Should they not come at the immediate offenders, it will descend on the nearest kindred. As an evidence of the various opportunities that a brutal driver has to gratify his revenge, (the predominant principle of the human race,) let any planter go into his field, and in any Negro's task, he can find apparently just grounds for punishment. To prevent this abuse, no driver in the field is allowed to inflict punishment, until after a regular trial. When I pass sentence myself, various modes of punishment are adopted; the lash, least of all.—Digging stumps, or clearing away trash about the settlements, in their own time; but the most severe is, confinement at home six months to twelve months, or longer. No intercourse is allowed with other plantations. A certain number are allowed to go to town on Sundays, to dispose of eggs, poultry, coopers' ware, canoes, &c. but must be home by 12 o'clock, unless by special permit. Any one returning intoxicated, (a rare instance,) goes into stocks, and not allowed to leave home for twelve months.

An order from a driver is to be as implicitly obeyed as if it came from myself, nor do I counteract the execution, (unless directly injurious,) but direct his immediate attention to it. It would be endless for me to superintend the drivers and field hands too, and would of course make them

useless. The lash is, unfortunately, too much used; every mode of punishment should be devised in preference to that, and when used, never to lacerate—all young persons will offend. A Negro at twenty-five years old, who finds he has the marks of a rogue inflicted when a boy, (even if disposed to be orderly) has very little or no inducement to be otherwise. Every means are used to encourage them, and impress on their minds the advantage of holding property, and the disgrace attached to idleness. Surely, if industrious for themselves, they will be so for their masters, and no Negro, with a well stocked poultry house, a small crop advancing, a canoe partly finished, or a few tubs unsold, all of which he calculates soon to enjoy, will ever run away. In ten years I have lost, by absconding, forty-seven days, out of nearly six hundred Negroes. Any Negro leaving the plantation, or field, to complain to me, is registered and treated as such. Many may think that they lose time, when Negroes can work for themselves; it is the reverse on all plantations under good regulations—time is absolutely gained to the master. An indolent Negro is most always sick, and unless he is well enough to work for his master, he cannot work for himself, and when the master's task is done, he is in mischief, unless occupied for himself. And another evidence arising from the encouragement of industry, I make on this estate as good crops as most of my neighbours; plant as much to the hand, do as much plantation work, and very often get clear of a crop earlier than many where these encouragements are not held out. I have no before-day work, only as punishments; every hand must be at his work by daylight. The tasks given are calculated to require so much labour. It is as easy to cut three tasks of Rice, as it is to bind two, or to bring two home. It is easier to ditch eight hundred cubic feet of marsh, than four hundred feet of rooty river swamp. There are many regulations on a plantation that must be left discretionary with the manager. In harvesting a crop of Rice, some acres are heavier, or further off than others, some hands quicker, or more able than others; all these, considered, make a wide difference—by giving a far and a near task to bring in, or putting them in gangs, the burthen is borne equally, and all come home at once. Frequently (always I can say) by Friday night, I have nearly as much Rice in, as if the regular task during the week, had been given. There may be fifteen to twenty

acres left; say, bring it in, the balance of the week is yours. By 10 a 12 o'clock, all snug, and ten to fifteen acres extra got in.

By this mode I not only gain time, but afford them some also. A man, white or black, that knows such will be the result, will seldom deviate from the right course. All these things are not to be slipped into at once; it has been the work of nearly twenty-seven years, and I find many things yet to correct. With regard to feeding, they have plenty of the best Corn, well ground, by water and animal power, with a portion of Fish, (No. 3, Mackerel,) Beef, Pork, and Molasses, and when much exposed, a little Rum. To each gang there is a cook, who carefully prepares two meals per day. The very grinding and cooking for them affords the time that they apply to their own purposes; if their provisions was given unground, many would trade it off, or be too lazy to cook it. Any one that has spent a night on a plantation where the Negroes grind their own Corn, must recollect the horrible sound of a *hand-mill*, *all night*. It is this that wears them down. He goes to the mill—it is occupied—he must wait until the first has done, and so on; some are at it all night—their natural rest is destroyed. Many masters think they give provision and clothing in abundance, but unless they use means to have these properly prepared, half the benefit is lost. Another great advantage in grinding and cooking for them is, that the little Negroes are sure to get enough to eat. On this estate, there are two hundred and thirty-eight Negroes from fifteen years down, and every one knows that they do not increase in proportion in a large gang, as in a small one, with the same attention. I cannot exemplify in too strong terms, the great advantage resulting from properly preparing the food for Negroes.—They will object to it at first, but no people are more easily convinced of any thing tending to their comfort, than they are. In fact, a master does not discharge his duty to himself, unless he will adopt every means to promote his interest and their welfare. Again, many will say it takes too many to wait on the others. An old woman for a cook, who will raise one little Negro extra, which will certainly pay her wages, besides the very great comfort it will afford the others; a machine that will not cost in twenty years, more than \$15 per annum; a little boy to drive an old horse two days in the week, and an old man, (or even the overseer on



a place of thirty hands,) to act as commissary in issuing the provisions, I am sure, well regulated, will add 25 per cent. to the owner, including gain in Negroes, comfort to them, and to their master's feelings. During the summer, little Negroes should have an extra mess. I find at Butler's Island, where there are about one hundred and fourteen little Negroes, that it costs less than two cents each per week, in giving them a feed of Ocrasoup, with Pork, or a little Molasses or Hommony, or Small Rice. The great advantage is, that there is not a *dirt-eater* among them—an incurable propensity produced from a morbid state of the stomach, arising from the want of a proper quantity of wholesome food, and at a proper time.

I have invariably found that women, that had been accustomed to waiting in the houses of white persons, have the largest and finest families of children, even after going into the field. I believe it arises from this circumstance, that they had contracted a habit of cleanliness, and of preparing their food properly. You, on looking round, will find this the case. An hospital should be on each plantation, with proper nurses and apartments for lying-in women, for the men, and for a nursery; when any enter, not to leave the house until discharged. I have found physicians of little service, except in surgical cases. An intelligent woman will in a short time learn the use of medicine. The labour of pregnant women is reduced one half, and they are put to work in dry situations.

It is a great point in having the principal drivers men that can support their dignity; a condescension to familiarity should be prohibited. Young Negroes are put to work early, twelve to fourteen years old; four, five or six, rated a hand. It keeps them out of mischief, and by giving light tasks, thirty to forty rows, they acquire habits of perseverance and industry.

My knowledge of the culture of the Sugar Cane, is not very extensive; it has been cultivated with us since 1815, and has been found more profitable, (notwithstanding a partial loss of crops, occasioned by bad seed, from ignorance in the mode of preserving it,) than Cotton, and less precarious than Rice; not so liable to be injured in gales. In 1824, from fifty-six acres, that were ground, the product was 39 bhds. of Sugar, about 1200 lbs. nett, each; the Cane was much injured by lodging and wreck matter. The best

lands for Cane, are strong provision land, or river swamp. If possible, the plants should be put in the ground in Nov. about three inches deep; they will be safe against frosts. Should they come up and be cut down, (unless very near the surface) it will be a benefit rather than an injury. During the winter water does not injure the plants; in the spring, a little water and a warm sun, does much damage. The beds should be stout, and five feet apart, a deeper trench than for Cotton; the Canes laid in, one, two, or three together, whole; should they be crooked, those that cover chop them in with the hoe, avoiding the eye. It is better than cutting in plants, being more easily transported, and the time saved. About March, the earth should be removed about one half; when the Canes appear, hoe off, nearly baring the plant; about the 1st May, earth should be put to the beds, and at every working the beds made larger, throwing the earth among the shoots. Strong lands will afford such a growth, that very little can be done after the 15th June, until September; the Canes should then be trash-d, that is, removing the under leaves, as high as they are disposed to come off, and when Canes come in contact with the earth, either from winds or their own weight, the trash should be put under, to prevent their taking root, which injures the juice. About the 15th to 20th October, that part to be put by as seed is cut; two rows thrown in one ally, and some trash put over; when cold weather sets in, some earth; if covered at once, vegetation is brought forward. I have known Canes to lay all winter in a canal, and be perfect. About the 1st November we commence grinding and boiling. I do not think a Cane crop heavier than a Rice crop; not so much time occupied as in cutting, binding, bringing-in, thrashing and pounding; but there is more hard work to be done, in a less time, than in a Rice crop. There are some Planters that employ overseers at low wages, perhaps more destitute of principle than the blacks, and do them more harm than the owners good. Others, without humanity, grind out good crops, and in a few years break down the gang. Slave owners cannot be too particular to whom they intrust the health (I may say life) and morals of what may justly be termed, the sinews of an estate. A master, or an overseer, should be the kind friend and monitor to the slave, not the oppressor.

I notice in the 9th number of the *Agriculturalist*, that a correspondent recommends an impenetrable fence, protected by dogs, to prevent thefts.

I have a mode, I think, preferable. I allow all to plant a small piece (oblige some,) for themselves; if one sheaf is taken from me, I take three from them; if from each other, I seize all they have; if not enough, I take the next crop. I purchase what crop they have to spare, and hope I have made them happier at home than any where else.

I have *written much about little*, and should you be able to pick out any thing useful, I shall be pleased. It will afford me pleasure, at any time, to reply to your communications.

I am, dear Sir, your most obed't.

R. KING, Jr.

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ART. II.—*Essay on the best mode of Setting a Crop, in the Middle Country of South-Carolina.*

COMMUNICATED FOR THE SOUTHERN AGRICULTURIST.

*Mr. Editor*:—The belief that an essay would be valuable that would point out the best means of setting a crop, conducting its operations, and pointing out its difficulties and the means of overcoming them, induces me to offer you this attempt. You will consider it as applicable to a plantation in the middle country, where a portion of the land is hard, and where the plough is much looked to, to save the labour of the hoe. In setting a crop, the first object is to make as large a one to the labour applied as possible, and not to the land planted. The effect given to the labour of the hoe, by the free and judicious use of the plough, is so great, that that most valuable implement should be in the hands of one third of the workers on the plantation; it at once increases the task from a half, to the whole acre, and substitutes a light and active motion, for a more slow and laborious one; besides, by the expedition of its operations, it enables you to take advantage of the seasons to pulverise your lands, and put them in order, when you have rains to allow of its being done well. About one half of your ploughmen should be able to swing their ploughs over

their heads, and if you can get such among these who are not good at the hoe, so much the better ; the rest may be inferior, half hands, or less, as there will always be work enough for them that does not require skill or dexterity, such as the middle of the rows, &c. see that your provision crop is so put in as to insure enough under all disadvantages of seasons, and keep in mind that Corn and fodder are the sinews of a plantation. Do not put in too much land that needs manure, or that you have manure for, and change your Corn land into Cotton, and your Cotton land into Corn, as they both do better for the change. Never put small grain twice in succession in the same land, and remember the stiffest lands, under equal circumstances of fertility, produce the most, but require much ploughing before they are put in. Harrow before you sow, and not after if the land is fine, the one levels the surface and equalizes the the scattering of the grain, and the little fine ridges left by the plough, after ploughing in, prevent the land in some measure from running together, and with each rain earths the roots of the grain. Try and put your Cotton into lands that are easy of cultivation, as one acre of Cotton requires more labour to make than two of Corn, and you have less opportunity of the plough's overcoming the hard land. Set your crop of Cotton so that you may get over it with the hoe, once in ten or twelve days, and divide your lands by tasks, and not by acres, and make the calculation. On all well conducted plantations, the pencil should precede the plough. In a dry season a good crop may be made that is gone over in eighteen or twenty days ; in a wet one, the plough should do the hoe's work occasionally. Your Corn should be planted early, so as to be thinned and moulded before Cotton wants work ; if it has size, thin before moulding, if not, or it has enemies, let it wait, and be thinned when safe, after rains, as it is easier when the ground is soft. Early Corn makes, generally, a heavier and a greater crop than late, and will wait longer for a rain when of the age and size for shooting and tasseling. I saw early Corn, in 1826, wait three or four weeks for this operation ; late Corn will not wait. Corn that has had fine growing rains and is full of sap, bears drought worse than such as has suffered all along. If you are strong in ploughs, and design to plant largely to the hand, give wide distances, it yields the most certain crop ; such as is close makes the largest crop, if the seasons are



very favourable. Corn, at single stalks, makes the most per acre; double, per hand. The latitude of Virginia is more suited to Corn than Rice; it will not bear here as many stalks per acre, perhaps two thousand five hundred on the poorest, to five thousand on the richest land, constitute a minimum and maximum, beyond either of which it might not be prudent to go; eight feet, by two and a fourth, single, and six by six, double stalks, are much easier to attend than four by four, and five by two and a half, single. In Cotton, the wider the rows, the easier, though I would not put any land wider than five feet, nor nearer than three, as I would in preference thin in the rows to four feet. I think one and a half to two feet the proper distance for Cotton that exceeds one thousand weight per acre, and eight inches to one foot such as is under five hundred weight. I consider that one and the same object is to be attained in the culture of Corn and Cotton, and every lateral rooted plant, except, perhaps, the Potatoe; that is, to make the earth fine and deep near the plant, for it to push its first roots out in search of food, and to continue this tillage till the bearing stage, when the roots should not be cut; but as this communication has already increased to an unreasonable length, I shall make it and its application to a crop of Cotton the subject of my next.

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ART. III.—*Observations on the Winter Flowing of Rice Lands, in Reply to Mr. MUNNERLYN'S Answers to Queries, &c. by a Rice Planter.*

To the EDITOR of the "SOUTHERN AGRICULTURIST."

Sir :—In perusing the 5th Number of the Southern Agriculturalist, wherein is contained the answers of Mr. Charles Munnerlyn, to queries proposed on Rice Planting, and which allow me to say, is given with his characteristic good sense and modesty. But in his reply to the 11th query, on winter flooding, he so widely differs in opinion with myself, as to its utility, that I must, as information is what the public are in quest of, with due deference to that gentleman's

experience, beg leave, through the medium of your useful journal, to give such contravening proof to his opinion on that subject, as my experience suggests. Therefore, to commence with the theory and practice of the subject. We know that all plants are fed from the soil they grow in, by some particular fluid (not to speak more technically) suitable to its particular constitution, and that on the best upland soils, if not annually manured, and if planted with the same crop, for a succession of years, that this plant, be it what it may, at last consumes that fluid, and in a degree assumes *sterility*, with a yearly diminish, on the yield of such production. Change the crop then to any other plant, and you will find all the difference imaginable, and on resuming, the succeeding year to this change, the same plant that it appeared to be tired of, from its diminution, you will find it again grow successfully. What causes this, we naturally enquire.

Why, Sir, the land from cultivation the last year, in some other crop, has of course not improved any thing in its fertility, but has recruited the nutriment congenial to the support of the crop that had exhausted all its powers the year previous, and is again able to supply its wants, which a succession of years with the same crop had divested it of.—Therefore the change from rice, even on tide swamp, to any other crop, enables the land to recruit that sustenance on which the rice plant feeds, by keeping rice off for one year. This is the reason for such improvement on a change of crop on tide swamp, or rice lands. Another is, that all rice or swamp lands are, especially when much worn, constantly inclined to pack and consolidate. Therefore, by working it one season in any of the upland growths, which requires frequent stirrings, this principle is removed, and consequently better prepared for rice the *succeeding year*, which last may be considered as only a high preparation for a rice crop.

But to return to the principle of water flowing. We would find, Sir, were it not for the constant replenish of sediment from the tide, which the land receives at every flowing summer as well as winter, and all other seasons of the year, that our best tide swamp lands would soon wear, and become, to use a common phrase, so tired of its crop as to be quite an unprofitable culture, and that we should in a few years have necessarily to change crops there as we are compelled to do on any other land. But this constant tide-

flooding precludes that necessity, and we are enabled thereby and could continue to plant the land in rice, in any successive number of years, and make profitable crops, by attention to admitting this generous replenish of sediment from the tide. I may here be asked, why inland swamp is more desirable than our common uplands. I would answer, Sir, they generally being of better foundation and soil than any other lands, (*tide swamp excepted*) are by nature more durable, and that although cut off from the flowing of the tide, that they nevertheless do receive from heavy falls of rain on the upper parts of their streams, in almost every season, fine supplies of decayed vegetable, which are deposited while the waters are passing over said lands to their destination.

That I must, therefore, maintain my position, that all swamp lands subject to inundations, from tides, or otherwise, are supported in durability by the replenish of the water sediment, I would ask Mr. Munnerlyn if he has not observed the improvement of lands appropriated to working the rice machines by water power, which consequently receives a fresh supply of water twice in twenty-four hours. This, I presume, he will acknowledge, with others who have seen the matter tested.

We can illustrate the matter to convictive proof, as to the constant requisite supply of fluid suitable to each particular vegetable of its kingdom.

For instance, embank a piece of salt or brackish land, and prevent a recurrence of the tide, which feeds its natural growth, what is the result? Why, Sir, that growth continues to live until it has exhausted all the nutriment left by the precious fluids, congenial only to itself, at which time it dies for sustenance, and some growth requiring a more friendly soil, supplies its place.

There is no doubt, Mr. Editor, that this process is the proper one for reclaiming brackish lands, as its natural plants sooner expunge all its unkind and unfriendly qualities to our culture, than we could possibly do by culture and draining, &c. &c.

Mr. Munnerlyn's objections, to water covering on rice, instead of earth, from its floating, has to my knowledge, for several years past, been obviated by Mr. John H. Allston, of South Santee, whose preparation I have witnessed. He churns red clay in an old fish barrel, with water, supplying

both as they are wanted, and throws over his rice in five bushel heaps, on boards, stirring the same with a hoe until all the rice is wet with this muddied water; and when enough is done for two or three days use, ahead, throws the whole in bulk, whatever the quantity may be, a few hours. When, if the weather is warm, it should be spread in the barn, twelve or eighteen inches deep, and in one night it will lose all adhesion to the fingers, and sow well. Rice prepared after this manner, you may introduce the water on as fast as your trunk will let it in, at any time of the day, without any floating, and I do suppose that lime, or any other heavy earth, would answer as well as red clay.

Allow me to add, by way of note to winter flowing, my opinion as to the treatment of stiff clay tide lands, founded on experience. Such land should be ploughed or dug up in November or December, and the water thrown on and kept there, except to change as occasion may offer, until the appearance of severe freezing weather, when it should be dried for the benefit of freezing. This method renders it easy to pulverize, and continues a freer surface for the season than any other mode that I am acquainted with, and they yield greater than usual for that crop.

I am, Mr. Editor, your's, respectfully,

A RICE PLANTER.

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ART. V.—*An Experiment on the Planting of Corn; by a Planter of the Middle Country.*

To the EDITOR of the "SOUTHERN AGRICULTURALIST."

Sir:—The following is the result of an experiment upon five acres of exhausted land, (capable of producing about ten bushels of corn per acre,) with the view of ascertaining the efficacy of deep winter ploughing, and the comparative benefit of different manures, (all readily obtained,) which, if you think likely to be beneficial in the slightest degree, you can insert in your valuable periodical.



The soil in the five acres differed, one portion being more silicious than the other. It had been cleared and cultivated with but little intermission, perhaps more than forty years. In December I commenced penning my cattle upon it, near one hundred head on a half acre, and continued on it from seven to ten nights, having previously littered it with leaves and corn-stalks; at the expiration of that time, the pen removed, and with a Freeborn Plough, No. 1 $\frac{1}{2}$ , broke up as deep as possible. On this first pen I strewed a bushel Gypsum. In the mean time, I had continued hauling leaves &c. on the ground intended for the successive pens; the stock continued the same length of time, and in the same manner ploughed in, (omitting the Gypsum) until I had penned two and a half acres. I then intended to manure the remaining part with stable manure, cotton seed, and the two mixed; in pursuance of which, I manured four rows, an acre deep, with cotton seed alone, four more adjoining with an equal mixture of stable and cotton seed, and the residue of an acre with stable manure alone, (well fermented) all of which I strewed on, broad cast, and ploughed in with the same plough. This consumed eighteen wagon loads. Finding, at that rate, that it would require more manure than I was willing or could conveniently spare, I recommenced the penning the cattle, but without the leaves or any other vegetable matter put on the ground, and continued them on each piece for the same length of time before mentioned, until about the first of March, when it became necessary for me to remove my stock. This I did less reluctantly, as the season had declined, or was declining, when the land would derive its certain benefit from the exposure of its broken surface to the frosts. There was then near an acre left to be disposed of. I had a pile of corn-stalks, which had remained such a length of time uncovered and untrodden, that their efficacy was doubtful. Upon examination, they were found to be half decomposed, but perfect-dry. I strewed them over the surface, about an inch thick, and ploughed in as before, as soon as possible. A harrow was then run over the whole ground, to level and break the clods, but it being exceedingly dry and hard, the desired effect was but partially answered.

On the 11th April, planted. I run a single furrow four and a half feet wide, and each hand having a two-foot rod,

planted it that distance in the row, which gave four thousand nine hundred and fifty stalks to the acre.

On the 11th and 12th May, thinned, and with the hoe filled the furrows.

On the 18th and 19th May, ploughed with the shovel.

On the 7th and 8th June, moulded with a Freeborn, No. 0, and broke the middle with the shovel plough, having just previously given the part in which I put the *old* corn-stalks, a light dressing of cotton seed, (about a single handful to the hill) and the pens, without the leaves, &c. a similar one of stable manure. The former looked very inferior at this time, to the other acres, but the light dressing of cotton seed improved it rapidly, and consequently it was superior to any part, except the acre manured with cotton seed, stable, &c. as described before, whilst the latter improved but little, if at all, by the dressing of the stable manure. Finally, as it began to tassel, gave it a bed with the hoes, making in the whole, but two ploughings, and two hoeings after planting; if, indeed, the filling the furrow, in the first instance, can be termed a hoeing. The comparative appearance and product of the acres, as cultivated with the different kinds of manure, are decidedly. 1st. The cotton seed alone. 2d. Mixture of seed and stable. 3d. Stable manure alone. 4th. The dry corn-stalks, aided by the dressing of the cotton seed. (The seed was killed just before applied. If, as usual, they had been suffered to remain uncovered during the winter, the benefit from so small a portion would have been inconsiderable.) 5th. The pen with leaves &c. and the Gypsum. 6th. The pens without the Gypsum, but with the litter. And last. The land penned without additional matter to that found upon it. The corn upon which the plaister was put, had, during the whole season, the greenest colour and most luxuriant appearance, although the product was less than several half acres not so promising. It may be proper to remark, that I used for planting, the common gourd seed corn, and the yellow northern corn, and planted alternately a row of each. The latter matured earlier, and I think was more productive. There was during the season lost, from various causes, from one hundred and fifty, to two hundred stalks in each acre. The average product of the five acres were forty-seven bushels. The individual acre manured

with cotton seed &c. produced fifty-five bushels, and I have no doubt, had I given the *balance* a second and third dressing of manure, however *sparingly* put on, it would have equalled *that*.

*A Planter of the Middle Country.*

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ART. V.—On Embellishing of Estates.

*Sir*:—Heart and hand as I am, in the present political contest with the southern States of the Union, condemning as I do, the waste of their labour in continual excursions to the north, I am desirous that some good should result from a custom which is entailing upon their country the same ruin which the absentees of Ireland have brought upon that bountiful island.

I do know, and from actual observation, that the gentlemen from the south, are among the most industrious agriculturalists of the Union. This is not their character abroad, and perhaps for no other reason, than because the land-holders are not daily seen engaged in manual labour, but *Sir*, there is a wide difference between the agriculture of the south and the north, for while the latter, on fifty or one hundred and fifty acres, producing only the coarsest staples, requiring but little skill, and furnishing but small returns of wealth to our country, from exportation, the rich and abundant staples of the south require the most constant attention and continued observation, not merely from practical agriculturalists, but from scientific men, who have to brave a vertical sun, in an almost tropical climate. Cotton, which has been, and which continues to be, the source of so much real wealth to our country, may be looked upon by our northern manufacturers as an article within the simple management of our Negroes. Never was greater mistake; for you well know that from the hour of planting, until it is securely bagged, it requires the eye and untiring attention of the owner. Rice, also; it is not like wheat, rye, or corn, to be grown by the simplest management. It requires the most minute and constant attention, to a complicated process, in atmosphere almost destructive, and when grown, cannot be disposed of in the easy form of wheat or rye. It

must pass through a nice and difficult process, to fit it for market; and the neglect of, or inattention to any one process, may be fatal to the planter's crop. Indigo and Sugar, also, articles of immense demand, can only be made in the south, and both of which require high intellect, and the most constant and laborious attention.

Yet high as my southern friend stands in my estimation, I owe it to truth, to say, that they have been strangely neglectful in one important point, of embellishing their estates with the splendid productions of nature, which, in fruits of every variety, in ornamental trees and shrubs, in perennial flowers of immense variety, would, without the expensive green and hot houses, flourish without shelter, in their fields and gardens.

My attention has within a few days, been attracted by seeing a description of the splendid establishment of Mr. William Prince, of Long Island, New-York. He has about forty acres in garden ground; employs about thirty-five gardeners, apportioned to the several apartments, with a skilful superintendant to each. His disbursements the last year for labour, importations and improvements, was \$18,000, and the actual expense of labour alone, is about \$7000 a year. With ample buildings for all his gardeners and labourers, he has two hundred and eighty feet in length, of green and hot houses, and four hundred and fifty feet of glass frames; and his present buildings will house thirty thousand potted plants. He cultivates two hundred and eighty-seven varieties of apples, two hundred and ninety of pears, two hundred of peaches, one hundred and eighty-three of plums, ninety-eight of cherries, thirty of nectarines, thirty-three of apricots, fourteen of almonds, ten of quinces, twenty-one of currants, sixteen of raspberries, fifty-seven of gooseberries, sixteen of walnuts, fifty of oranges and lemons, eleven of pomgranates, thirty of olives. He has above four hundred varieties of grapes. I have selected these fruits, being prominent articles, but to enumerate his wonderful variety of ornamental and useful trees, shrubs, and flowers of every kind, would occupy more time than I have to spare. Surely this noble establishment merits more than a common patronage, and yet what a small portion of the funds, the produce of nearly a year's close industry, is applied to purchase from Mr. Prince, a slender part of his immense collection, to afford to the purchaser a durable en-



joyment in viewing a splendid or fragrant flower, or in entertaining his neighbours and friends with a new and delicious fruit. The olive and pomegranate, the orange and lemon, should, in all their varieties, be tried. Peaches, apricots, and nectarines, are among the fruits most grateful to the palate, coming in succession during the heats of summer, and gentlemen should not be contented with one apple, pear, peach, grape, &c. The nursery-man can only guarantee the reality of the fruit, &c.

An apple or a pear which may be excellent under one climate and in one soil, may be worthless in a more southern or northern, high or low, clay or sand situation. To have fruit of first quality, all must be tried, and the good only retained. This will hold as it regards all fruit, and the experiment should be extended to the orange or citron varieties. We already know that some are much hardier than others—the sour orange than the lemon. Spare, then, gentlemen of the south, a small portion of your industry, to embellish your country, by planting your gardens and your lawns, with a selection of fruits and shrubs, and flowers from the garden of Mr. Wm. Prince. It is almost unnecessary to recommend Mr. Prince's establishment to gentlemen north of Maryland, for the value of his great collection is too well known to need any remarks from me; but a little reflection must convince any reflecting mind, that this establishment, so truly important to the country, must be supported by a generous public, and punctual customers.

I am, Sir, your obed't. servant,

F.

ART. VI.—*On the want of proper Information with respect to Gardening, in the Southern States; by WOODSIDE.*

To the EDITOR of the "SOUTHERN AGRICULTURIST."

*Dear Sir:*—As one of your earliest subscribers, and yielding to none in point of good wishes for the complete success of your work, I make no apology for the present communication; the more so, as it has been made with the

desire of calling your attention to a subject which, if carried fully into execution, will add essentially to the usefulness of the "Southern Agriculturist." In your prospectus, among other matters, you promised to devote some portion of your pages to Gardening; but, as yet, I have been disappointed in not seeing the subject touched in the manner I wished and expected. You have seen enough of us to know, that a *good garden* is rather a rare sight on very many plantations; and such as are seen, generally under the management of an old Negro fellow, (sometimes woman,) who is no longer fit for the field, and who never having had any instruction, is ignorant of the business, and *he who puts him there, knows very little more* than the poor old fellow! Where are we to collect information on the subject of Gardening, so that we may have it in our power to instruct others? Our climate is so different from that of Europe, that their books are of no great value to us; besides which, they are generally bulky, and, therefore, high-priced, and from habit we are not much inclined to wade through ponderous quartos or thick octavos, to get at the best and shortest way of raising vegetables for our tables. In *Miller's Almanac*, you will find some directions, *meant* for a Gardener's Calendar, but it is of little or no use. He says, sow cabbages, spinage, &c. &c.; plant beans, cabbages, cauliflower, &c. but not a word how it is to be done, &c. All these directions appear year after year, *with no improvements or additions*. Squib's is not often to be met with; besides which, it is a *long time* since Squib published (many years ago,) many improvements, and many additions (vegetables) have taken place, and been made, since that period. The American Farmer, in different numbers, published the last general directions; although a valuable work, it is not in the hands of many planters, because the subjects on which it generally treats, are not such as to be connected with *our peculiar pursuits*. But as the same cannot be said of the "Southern Agriculturist," a treatise on Gardening belongs *particularly to you*, hence I wish to direct your attention to it. As your work is published monthly, you have a decided advantage over others, because in every month, you have merely to treat of such vegetables as should be sowed or planted in that month, (that is to say, the work necessary to be done in the garden in that month.) Your readers will then be assured of obtaining monthly, (in a

CHEAP and EASY MANNER,) the *best practical management of a garden*; they will be instructed, and then with propriety *can instruct others*. I can give you the best and most approved method of cultivating Cotton and Rice, as is now generally practiced, but I cannot give, *any more than my old Negro gardener* about the "*Salsafy*," although I have eaten of it, and think it a great luxury, and should be well pleased to have it *now growing* in my garden. You say it is of easy cultivation. But how? Not a word. Do you sow the seed broad cast, drill, deep, or covered over lightly; allow the plants to remain there then, or set out at a proper age? Now what is the use of your telling me of this delicacy, unless you put me in the way of obtaining it?—Does it not therefore strike you, that you might do us all really "good service," by furnishing us monthly with a short treatise on Gardening? I should have been much more obliged to you, if you had given me some more information about this same Salsafy, (than any I have obtained from page 430, 431, Sept. number,) respecting *SauerkROUT*, &c.; and in this observation, I assure you I am not singular. In order, also, to make your work more useful and more agreeable, (the *latter* especially to the females of our families,) I would at the same time suggest the propriety of adding directions on the management of flowers, and FLOWERING SHRUBS, in order to induce the ladies to FORM SHRUBBERIES ROUND and about their houses in the country, such as are seen in Europe, in some of the northern States, particularly at their country seats near Boston, (and our woods will furnish a great variety.) This ornamental shrubbery would not only add much to their amusement, but would be, with very little care, *permanent*, and not liable to be destroyed by the ignorance or carelessness of the Negro gardener, during the *summer months*. They would have the satisfaction of cultivating them during our delightful winter, and the pleasure of enjoying their blossoms and fragrance during the spring months. This shrubbery would also *greatly improve* the appearance of our houses, and many of them, for the want of this *rural accompaniment*, have (as you may often have observed,) a very MISERABLE and UNCOMFORTABLE appearance, owing entirely to the want of some little aid of this kind, (and WHITE WASH,) to hide a DIRTY looking kitchen, stable, and other buildings we usually see stuck up in the "yard," setting at defiance eve-

ry thing like taste or architectural proportions. You have it very much in your power to give *a kind of new direction to our agricultural pursuits*, which, while they add nothing to our expenses, will materially promote our comforts and enjoyments.

I have thrown these remarks together in an abrupt and careless manner, but hope they will not be altogether *useless to you*. I am anxious for a very general and extensive circulation of your work, because I hope it will be useful to others, as well as profitable to yourself. With this assurance, I subscribe myself your well-wisher.

WOODSIDE.

Sept. 6th.

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*Note, by the EDITOR.*

We certainly owe it to our friends to assign a reason for the non-performance, on our part, of what we promised, and to which "*Woodside*" alludes in the above Communication. We trust it will prove satisfactory to our readers, when we inform them that this has been owing to our protracted illness, and late absence from the state, in search of health.—We hope that we shall not be complained of hereafter, should we continue to enjoy our health, and in the next number we will furnish an article on some subject connected with gardening. In the mean time we solicit contributions on the cultivation of the various vegetables with which our gardens are stocked; and communications on the cultivation of flowers and formation of shrubberies, would prove very acceptable. *Could not "Woodside" help us in this department?* At least he could give us his ideas on the subject; and as he says in his Communication, that he can give us the best method of cultivating Rice and Cotton, we hope that he will not fail to do so. *We shall always be glad to hear from him on any subject.*



ART. VII.—*On the Silk Worm; by Mrs. RUSSELL.*

The eggs of the silk-worm generally begin to hatch about the middle of April. Each day's hatching should be kept separate. They go through three stages of sickening, (which may easily be perceived,) when they should not have much food. They then shed their skin, and eat voraciously; when in health they should be fed at least three times a day, with the leaves of the fruit-bearing mulberry; the white is rather to be preferred, though the black will answer very well; the leaves must never be used with the least moisture on them, from dew or rain. Should the eggs hatch before mulberry leaves appear, the worms will *exist* on lettuce, but not *thrive*; they should be fed as soon as possible on mulberry leaves. A common, though tight building, should be provided. Two or three smooth boards, nailed together, will answer to lay them on, though in large manufactories they provide hurdles. The house should be well protected from mice, cats and birds, which are enemies to them, and destroy vast numbers. Six weeks is the period, from the hatching of the egg, to the formation of the cocoon, so that if they come out in April, the whole process is over by the end of May. The cocoons which are to be preserved for silk, must be baked in a warm oven, or the grub will eat its way through in eight or ten days. By putting the cocoons into hot water, with some spirits of wine into it, the silk can easily be wound off; though in large manufactories they perform this process in a quicker way.

Between five and six weeks after the worms are hatched, they should be provided with boughs to spin on. Branches of wild myrtle, stuck into the boards, answer very well.

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*Note, by the EDITOR.*

As Mrs. Russell, we know, has succeeded many years ago, as well as recently, in the culture of silk, we would call the attention of our readers to the fact stated by her, that "the whole process is over by the end of May." Families, therefore, who remove from their plantations in summer, may still carry on this delightful and profitable occupation

to advantage. Many families, we hope, will engage in it; and many ladies who have flower and fruit gardens, and farms in Charleston and its vicinity, we trust will lay off a portion of them for raising the mulberry, the scarcity of which, we apprehend, is the only obstacle at present, to prevent silk being raised next season to some extent.

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ART. VIII.—*On the impropriety of attending to one Crop, exclusively, on our Plantations, &c.*

*Mr. Editor:*—Believing that much convenience, as well as increase of the proceeds of our agricultural labour, would result from certain changes in our general practice, I send you my views upon the subject, for the *Southern Agriculturist*, if you think them worthy of a place in that useful work. One of our prominent errors is the cultivation of but one staple, or market article, on each separate establishment. A rice plantation, generally speaking, is exclusively such, and so too, for cotton. Many persons think that these two crops, if cultivated together, interfere with each other in their progress; but very little reflection will show the error of this opinion, if duly proportioned to the labour employed upon them; neither can, under any circumstances, be in a worse situation than if planted separately, by the number of hands properly assignable to it; therefore, the association cannot possibly effect an injury; but on the contrary, great advantage may be derived from it.—Suppose a crop, equally divided, say one and a half or two acres of each, planted to the hand, in seed time a peculiar state of the land, in relation to water, &c. may make it desirable that one or the other crop should be got in speedily; in which case, all the force being put to it, will despatch it in half the time required, if the whole was of that description. If backward with work, cotton requiring a longer season than rice, (I speak of long staple,) such an opportunity to forward it, will be found of great advantage, without in the least injuring the rice department; that grain producing well if planted in all April. When hoeing, in a wet season, it would frequently be desirable to suspend the ope-

ration in a cotton field; but if the crop consist entirely of that article, it cannot be done, lest the grass get ahead; whereas the time could be profitably employed in a rice field, and return to the cotton when the weather became more favourable. All these occasions will, as they occur, force themselves upon the notice of a practical man. It is in harvest, however, and preparation for market, that reciprocation of benefits must always take place between the two crops. Every body knows the very great advantage of getting rice into the yard as soon as possible, after it is ready for the sickle; this ought to be about the last of August. The hands assigned to the cotton part of the crop, will now be at leisure, and by their assistance, the whole of the rice may be safely deposited in the barn yard in ten days; the cotton will then, or soon after, be opening freely, when doubling the pickers will be an advantage in preventing waste and injury to the quality, which no planter of long staple cotton, needs any argument to convince him of. Again, in preparation for market, rainy days may be employed upon cotton, and fair with the rice, so that no time will be lost. Many other occasions may be specified, in which the mutual accommodation between the two crops, would be gained. Situations (particularly on the sea-islands) having no rice land, do not admit of this arrangement; but then indigo, sugar cane for syrup, provisions connected with stock, and perhaps many other articles, may be substituted with like advantage, always keeping in view the importance of associating those, whose busy seasons do not come together. Nor would it be a valid objection, if, from the state of the market, one of the crops should be more profitable than another; because the helps before mentioned, and the better opportunities the combination would afford, of making and applying manure, would, by increasing the produce from a given quantity of land, compensate for any such difference in comparative value. A large proportion of our inland swamps, now rather a nuisance, would thus be restored to profitable use—itself a valuable object—besides affording better opportunities of regulating the measure of our productions, to suit the demand for them. In reference to long staple cotton, this last is a very important consideration, as the limited extent of country on which it is cultivated, admits of such management. It is otherwise with short staple. So

unbounded is the region which does, and may yet be made to produce it, that no check to redundancy, is likely to operate, except such a fall in price as shall render it comparatively unprofitable. Another striking error in our management, is the general neglect of the lesser objects connected with agricultural pursuits. Provisions, (which, by the bye, ought to, but it seems does not, command the first consideration,) stock of every kind, poultry, productions of the dairy, and of horticulture, also the orchard and the meadow, most of which, our happy climate and fruitful soil, would afford, of the best quality, and in great abundance, with perhaps as little care and labour, as is required for the same objects, in any part of the world. The substantial enjoyments of a country life, are mainly dependent upon plenty of these articles, yet we have fallen into the improvident habit, of looking for our supplies of them from abroad. Our horses, mules, hogs, much of our beef, and some mutton, come from across the western mountains; tens of thousands of bushels of corn are supplied by the Atlantic States, from North-Carolina to Connecticut; butter, in great quantities, poultry, vegetables, and a thousand et cæteras, making up what is generally called a cargo of notions, are brought from the same quarter; and I have heard it mentioned, in terms of reproach, that hay, the growth of New England, has been consumed in Columbia; burthened with all the charges unavoidably incident to transportation. All this occasions a ruinous, perpetually ebbing current of our cash. And why, it may be asked, have we so long submitted to be thus tributary, in despite of nature's bounty? I am afraid this question implies charges of slothfulness and cupidity; but, I at the same time hope, they may both be at least palliated. The very high prices our rich staples commanded for successive years, seduced us into entire devotion to their production; this spared us the necessity of attending to the minutiae of farming, and we were not unwilling to share our prosperity with our northern brethren, by affording them a market for the proceeds of their industry. This state of things might have still continued; the liberal spirit of Carolina would not have stooped to a calculation of cents, in this family intercourse. She would have gone further, and upon all occasions, when supplying her wants, and meeting a foreigner and a countryman in fair competition, have given a generous preference to the latter. She would.



moreover, have cheerfully consented, that the whole amount of contribution necessary for the legitimate purposes of our common government, should be charged upon the foreigner when he rivaled the native. But this is not enough; what would have been given with fraternal feeling, is claimed in a domineering spirit; and oppression upon oppression has been superadded. Circumstances then have changed, and it is time for the agriculturist of South-Carolina to fall back upon his own resources. If true to himself, he may enjoy almost all that is essential to the comfort of man, without going beyond the confines of his own State. Under any circumstances, it is desirable that our practice in these particulars, should be changed to a convenient extent; but if it shall be found expedient, as a means of defence against oppression, that we should provide altogether for our own wants. I trust that those who seek *monopoly of the home market*, will soon find that even the portion they possessed has eluded their grasp, and that no purchaser can be found in Carolina, for an onion or a fly-brush, which is not produced at home, or at least in a quarter where their rights are respected.

S.

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#### ART. IX.—On the Spinning Machine.

“Georgia, 14th August, 1828.

*Dear Sir:*—I avail myself of this opportunity to give you the information asked for in the 8th number of “*the Southern Agriculturist*,” respecting the Family Spinning Machine, advertised at Milledgeville. I have had one of them of six spindles, in use about a year; that I got of Mr. Williams, of Milledgeville, for which I paid him \$140, at his shop.—It gins the cotton, cards it, and spins it in the same operation, by a hand, turning a crank, and the work is not laborious. One hand spins, quite easily, nine hanks of yarn per day, of the quality of four hundred, or coarser, (finer cannot be spun on it,) which turns out four and a half yards of cloth. This machine is somewhat complicated in its con-

struction, and it is not unusual for it to get deranged, which, however, is easily corrected, by one acquainted with it. The workmanship of the one I have, is generally bad, and some of the materials of which it is made, are not of the proper kinds. Lead is used for boxes and rollers, in place of harder metal, in consequence of which, they soon want replacing. Some of the rollers of my machine failed some time since, which I was able to replace with others of my make. The thread spun on these machines is stronger and more even, than that spun upon the common wheel; and as it does the work with one hand of six or seven hands, with as many wheels, and occupies less room than the common spinning wheel, it must, by every one, be considered superior to the wheel. Its dimensions are four feet six inches in height, three feet six inches long, and two feet wide.

A manufactory of these machines in Charleston, by a faithful artist, would undoubtedly find extensive encouragement, and be of great advantage to the farming community, particularly in these times, when it seems so necessary that we should manufacture the coarser part of our clothing, at least, within ourselves.

Before I conclude, it may not be amiss to remark, that the people generally, in this section of the country, seem to have become sensible of the necessity of pursuing a different course of management, from the ruinous one practiced for many years past. We will plant less cotton; we will raise our horses and mules; raise our hogs, and manufacture our own clothing, is now the first remark of almost every one of our complimentary salutations. I cannot refrain from remarking here, that I was much delighted in a visit I made yesterday, to Mr. Moses Johnson, a patriotic farmer of Burke County, from the manner he was going on, manufacturing, (to cheat the Tariff, as he called it.) He had in operation, in the same room, a twelve spindle spinning machine, on the principle of my own, a warping machine, and fly-shuttle loom. He manufactures all the coarser clothing used on his plantation, and is now engaged in manufacturing his cotton bagging, and his bale-rope and twine. Should we all become Johnson's, we would have no cause to dread the Tariff.

I am, very respectfully, dear Sir,

your most obed't serv't,

AGRICOLA.

ART. X.—*Extract of a Letter from the Hon. JOEL R. POINSETT, our Ambassador at Mexico, to WILLIAM PRINCE, Proprietor of the Linnæan Botanic Garden, near New-York.*

[COMMUNICATED FOR THE SOUTHERN AGRICULTURIST.]

Sir:—Agreeable to your request, I send you some seeds of the *Schinus*, the tree with pendant branches and bearing clusters of red berries. These are highly aromatic, and are used by the natives as a condiment with their food.—The common name of this tree is *Arbol Peru*. I introduced it into Carolina in 1823, and found that it succeeded very well in the open air, at Charleston. In the box are two pods of the *Arbol Manita*, and two *Granadilla*, a very pleasant fruit, that grows upon a vine; the flower resembles the passion flower.

With the pods of the *Manita*, there are two pressed flowers of that tree; the colour is a deep and brilliant red.

I have likewise procured a tin box of seeds, from the Botanical Garden; you will find several new varieties of flowers among them.

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ART. XI.—*On Artificial Grasses; by N. HERBEMONT,*

“Columbia, S. C. Sept. 8th, 1828.

J. D. LEGARE, ESQ.

Dear Sir:—Having seen in “*the American Farmer*,” No. 44, vol. 10, of 22d August last, an article on Artificial Grasses, adapted to the southern States, signed D. dated Richmond, Va. July 28th, by which it appears that Mr. D. has received a letter from a distinguished gentleman from South-Carolina, lamenting “the total destitution, in his section of country, of all valuable grasses,” &c.

This gentlemen is certainly mistaken, unless he lives in a part of the state I am totally unacquainted with. It is true that we must manage our grass lands differently from what

is done in more northern climates; but it is also true that besides very valuable exotic grasses that may be cultivated with advantage, we have many native ones which can, with a little trouble, be made very profitable; and among these there are several kinds that in no degree yield to any of those cultivated at the north. I believe it is perfectly true that we can, in the southern States, obtain hay of a quality equal, and most probably superior, and at an expense less than can be done at the north. We must also admit, that our agricultural habits have hitherto been opposed to our success in this respect, or rather that we never have considered the subject properly, or attended to it in a manner worthy of it. To prove this most satisfactorily, I shall state what Mr. R. a very respectable neighbour of mine, has been doing for several years, by noticing what he has particularly done this.

There is no planter in this state but who knows crab or crop grass, (*Digitaria Sanguinalis*,) and also the crow foot grass, (*Eleusine indica*,) and that both these make excellent hay, particularly the latter; and, also, that there is no need of sowing either of them, and that they will invariably grow more or less abundantly, according to the quality of the land, after a summer ploughing.

Mr. R. obtained last week from four acres of land, only of middling quality, *twenty thousand pounds* of crow foot grass hay, and he has another lot of about the same size, which will produce probably about the same quantity.— There is no kind of doubt as to the quality of the hay. It is very fragrant, and very nutritious, and both horses and cattle eat it most greedily.

I beg, Sir, you will take notice that this great crop of hay is a *second crop this year off of the same land*, from which was cut last June, a great crop of oats. Now to obtain such crops, Mr. R. manures his land pretty highly with stable manure; gets first a crop of indian corn; this is followed by a crop of small grain; rye, wheat, barley, or oats, and after the latter is off the ground, which is about the end of June, he gives his land a good ploughing, and has it rolled with a heavy roller, to smooth it, and he lets it stand, till about the time when he mows his grass and cures it. Where can such a crop of hay be procured at a cheaper rate? It is remarkable, that if the land is ploughed as early as the latter end of May, (which may be done if rye,



wheat or barley is the first crop,) crab grass will chiefly come up; but if as late as the last of June, or beginning of July, crow foot grass will come up almost exclusively; and this is the better grass of the two. The present crop of Mr. R.'s is the crow foot, which was from two to two and a half feet high. (I measured it myself.) The grass is most undoubtedly excellent, and it contains so much saccharine matter, that I have no doubt sugar might be extracted from it. This grass will grow on all qualities of dry land, and more particularly on a light sandy soil. Every farmer has it, then, in his power to have such crops of it as Mr. R. by using the same means. This being the case, why should we envy our northern neighbours their permanent meadows, or their other cultivated grasses? But we have low grounds also, well calculated for meadows, properly so called, and in these a great number of native grasses grow with the utmost luxuriance, and many of them make excellent fodder. I know but few of them by name; some of them, however, will be found among the *Panicums*, the *Paspalums*, (in dry as also in wet land,) the *Agrostes*, the *Peas*, &c. &c.

This productiveness of our cultivated lands, in the crab and crow foot grasses, without either being sown, is not, however, a new discovery. It has been obtained occasionally, and, I believe, every time it has been attempted. I have seen several papers, at different times, in "the American Farmer," to which I beg leave to refer your readers. Some of them will be found, vol. 3. pp. 212—224; in vol. 4. p. 412, &c.

It is undoubtedly desirable that the Agricultural Societies in this state, should direct some experiments on the culture of many of our native grasses, and I think it very probable that many of them would prove as valuable as the justly celebrated Guinea grass, or even, in some respects, more so, on account of their being suited to our soil and climate.

It may be interesting to your readers to see an account of some experiments I made about ten years since, on the culture of the Guinea grass. If you think it worth while, you may insert it. You will find it at the beginning of a little pamphlet sent herewith.

I am very respectfully, dear Sir,

Your obed't. serv't.

N. HERBEMONT.

## PART II.

### SELECTIONS.

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#### ART. I.—*On the Culture of the Sugar Cane; by THOS. SPALDING, Esq.\**

[COMMUNICATED FOR THE SOUTHERN AGRICULTURIST, BY MR. SPALDING.]

Having now been engaged twenty years in the growth of the sugar cane, I have marked of course, through the various occasions of that eventful period, many things that it might be well for the young planter to know, but which it is difficult to detail. In the general, no information that is beneficial can be derived from the West Indies; their soil, their climate, their habits, are all foreign to us. The six months that nature has given to them for the preparation and manufactory of their sugar, has shed over the whole economy of their establishments, a slowness of movement, that neither belongs to our people or our climate. It is in Louisiana alone, that real and beneficial information can be obtained upon the subject of sugar. It is there, where frost is treading upon the heels of the cultivator, and forbidding him to sleep or to slumber, until his work is accomplished, that we may learn what to do, and how to do it. The success of the sugar growers of Louisiana, is generally attributed to the soil. I have been there—their soil, I believe, is in no degree superior to our own—their climate, I am satisfied, is much worse. When I was in Louisiana, there was not an orange tree in the state, bearing fruit; they have been destroyed twice within the limits of my own information, to the very root—to wit: in the winters of 1796-7 and 1822. They have not been destroyed in Georgia, to the root, since the first settlement made by Oglethorpe.

\* This piece was first published in one of the Georgia papers, for which it was written.

In Louisiana, they are obliged to retain one sixth of all their cane, for replanting; and to have that portion carefully put up into matrasses before the first day of November, or one cold night destroys the hopes of the next year: And yet they have abandoned, in a great measure, all but the hardiest description of cane, the Creole cane of the West Indies. Otaheite, or Green cane, they rarely venture upon. There they have but one description of soil, the alluvions of the river, and these are stiff and cold. Here we have a variety of soil, adapted in some degree to the various descriptions of cane; and the only subject of our inquiry should be, what soil, within our reach, is best adapted to give us a moderate but certain return for our labour. And on this point I have no question, but that light soils, which are noticed to be quick and kindly in their production, and which are not too much elevated, will prove the best. In fact, any land, that in the beginning will produce a moderate crop, will be improved by the cultivation of cane upon it. So great is the residuum that the crop leaves behind it—understanding distinctly, however, that the cane is to be alternated with either cotton or potatoes, or some other plant with large leaves and strong roots. Plants of this character, are in their nature the opposites of the cane plant; they penetrate and loosen the soil; the cane, by its roots upon the surface, bind and stiffen it. This, with me, is not theory, but the result of twelve years experience. Another benefit arising from the cultivation of light sandy soils, is, that frosts, at the approach of winter, are more temperate, and that moderate frosts improve the juices of the cane, while the cold, when more severe, congeals those juices, and in the act of freezing, the rind of the cane is rent, and the juices are evaporated and weakened. The alluvion soils of the river, or the lower grounds upon creeks, will no doubt produce a much superior growth of cane; from which, however, it is more difficult to make sugar, and the sugar of which is always inferior. In fine, every day's experience satisfied me, that lighter soils will, in the end, be more profitable, while they are certainly cultivated with less labour to men and animals, than those of a heavier quality. If, however, river lands, or low lands of any description are selected, upon such I would unquestionably cultivate the ribbon cane; because, on those soils, the juices are more abundant than upon lighter lands, which re-

moves one of the material objections to this cane; and its ripening in the month of October, enables the cultivator to get off a greater portion of his crop.

In Louisiana, every where the cane is cultivated with the plough; three furrows are thrown together at from five feet distance, when a slight trench is opened in the middle, and the cane is thrown in a continued string—sometimes two of them. When the cane is about to be placed in the trench, it should be cut into two pieces, to prevent the extremities rising with the warmth of the sun, and deranging the young roots in the spring. The time of planting extends from the 15th of October, to the 1st of March; the fall of the year is the best, if you have leisure for the operation. Every cane that is put sound in the ground, in the fall of the year, will vegetate in the spring. In Louisiana, they cultivate from four to five acres to the labourer—that is beyond what I should ever hope—it is beyond what I should ever desire. Two acres of cane and two acres of cotton (Sea Island) may with diligence be accomplished. It is enough, and the division of the crop will facilitate every operation, either of cultivation or preparation for market. By the first of October, the ribbon cane, and by the first of November, generally, the green cane is ripe enough to make sugar. But how is this to be tested? The eye and the taste, may, to the experienced man, convey some information; to the inexperienced, none. But happily there is a small instrument, of little cost, and of great simplicity in its use, which measures with as much distinctness, the quantity of sweets contained in the juice of the cane, as a scale measures the weight of ponderous bodies. It is an Hydrometer, (its cost, in New-York, \$1,) a glass tube, with quicksilver in it; it is graduated from water (the unit,) to the heaviest syrups, (40)—with clear water, the tube sinks to the cypher; and when the juice of the cane will make sugar, it rises to seven. Below this it will not make sugar, and must be boiled into syrup. At seven it will require a quart of lime to make it granulate. When the instrument indicates eight, as the weight of the juice, a pint of lime to a hundred gallons, is enough; at nine, half the quantity will be sufficient. In the West Indies, they employ hot clarifiers, that is, copper vessels, gently heated, into which they put the lime with the liquor; and when all the mucilaginous matter has risen to the surface, under the influence of this



gentle heat, they draw, by a cock into the largest boiler, the clarified liquors. Here we use wooden vessels, of the size of our first boiler, having generally two of them, into which they put the lime, with the juice; when, after standing half an hour, the mucilage and fecula, will subside to the bottom, and the liquor having become transparent, and something of a bottle green hue, it is drawn into the boiler.—These clarifiers stand in my mill-house. In Louisiana, they lime in the kettles, and depend upon extra skimming; this lessens the trouble of the superintendant, but increases the labour of the skimmers. Upon the subject of boiling, no precept is of any availment; experience is the only instructor, and the eye and the touch heretofore the only guides, and these by no means correct ones, enveloped as the attendants are, in the clouds of steam, and oppressed with sleep. Happily, however, the refiners have lately brought science to their aid; they have found that the Thermometer will guide the superintendant to the point which concludes his labour, and as her walk is a measured one, and as her indications are uniform, by means of this instrument, which is not costly, (\$8 in New-York,) every kettle of sugar, while the juices are of the same weight, will be of the same quality.

It must be understood that water boils at 212 deg. of Fahrenheit's Thermometer; you can never increase this heat; it is a little hotter a moment before its ebullition than it can ever be made afterwards; as a basin of water contains, before it runs over, something more than it can be made to contain after its unity of surface is broken. The power in fluids to retain heat, is in proportion to the substances that are contained in them; and as you disperse in steam, the aqueous matter of such fluids, you increase the quantity of heat they are capable of carrying. The Thermometer, in marking the degree of heat in the fluid, indicates distinctly the quantity of any substance contained in it. It is on the observation of the phenomena produced by this law, that you arrive at the point you aim at. When the cane juice is reduced by evaporation, until it becomes sugar, by growing cold, and when that sugar is of the quality you desire it, you mark upon your Thermometer the degree of heat it carried in the boiler at the moment you damped your fire, and began to empty your kettle. This line once

determined, your principal attendant has only to watch his Thermometer attentively, at the close of every operation. At Sapello, during this season, our juice has ranged between nine and ten of the Hydrometer, and we have boiled our sugar up to 253 and 254 of the Thermometer.

These details place sugar-boiling upon a ground of security they had not heretofore arrived at. And here, with a few general observations, I will conclude this communication.

The cultivation of sugar cane is attended with about the same labour that is required in the cultivation of cotton, where the cotton is planted in drills and ridges. It is more difficult to plant than cotton, but once planted, there is no more anxiety; you neither dread worm or frost, nor cold winds; and you have five months instead of thirty days, to complete your operation in.

In reaping and preparing for market, the labour is heavy; but it takes the character of the vintage season of wine countries—it is a time of gladness, though of labour.

In all the operations that arise out of the cultivation of cane, the ox appears to be the best companion of man; he turns the best furrow in the field; he is the most docile and obedient in the mill; though he moves slow, he moves sure against any resistance, however great, that is made to him.

In situations where boilers can be procured in a day or two, it is a matter of indifference, whether iron or copper is used; but in a country where a broken boiler cannot be replaced but after a long delay, copper should always be preferred. The copper, however, of the boiler, should never be thick. Count Rumford has told us, and experience confirms the declaration, that thin coppers outlast thick ones. The reason is, the heat passes *through* thin copper into the fluid, before it has time to calcine its external surface. Thin copper boilers will cost even less than iron, while they are more secure against accidents; but they require more attention to cleanliness.

Whenever there is difficulty in making sugar, the cane should be reduced in the length, that is brought to the mill. One or two green joints, at the end of the cane, will materially injure the quality of the sugar, and increase the difficulty of the process in making.

**ART. II.—***On Cutting Oats and Indian Corn—making and applying Manures—Rotation of Crops, &c.;* by PHILEMON HALSTED, of Westchester.

[FROM THE MEMOIRS OF THE NEW-YORK BOARD OF AGRICULTURE.]

TO JESSE BUEL, Esq.

Being honoured with a circular from the Board of Agriculture, I will offer a few experiments which have proved to me of great advantage.

In the first place every land-holder who tills the ground, should be very careful to provide and make manure, by all possible means in his power; and this he may do to a considerable extent. He should provide himself with as much fodder as will winter more cattle than he can summer; and this may be done in the following manner: Cut your oats when the straw is green in part; let them lay and cure in the swath until they are sufficiently dry not to mould; bind them in sheaves, and stack them. When they are threshed, the farmer will find that his oats will thresh to greater advantage. The light oats sticking to the straw, makes it good fodder, and I consider it of as much value as will pay the expense of raising the oats.

Secondly, give up the old method of cutting your top stalks; and when your corn is sufficiently hard, or when you cannot find an ear soft enough to boil and eat, then proceed to cut and stout your corn in the field, in the following manner: Bring the tops of two hills together, without cutting; bind them with a few spears of straw; then cut and set up about enough to make about four sheaves, if bound; then put a band of straw about the top; and then you may add as many more, and bind the whole with two bands, always keeping the bottom of the stout open, so as to admit the circulation of air. At the proper time of gathering corn, you may proceed thus: Throw down the stout, unbind and begin to gather the corn; when you have stalks enough for a sheaf, bind them and lay it aside until you have enough for a stout. By this you save all the silk and small husks and under leaves of the corn, which were all lost by the former practice of topping and gathering corn. I will recommend that the stalks be stacked on a hovel, or

poles laid on crotches, and foddered in the yard. I have been particular as to the time it takes in this process, and can say I am satisfied it takes no more time than in the old method.

The farmer should embrace every open spell in the winter to collect from his milking yard the scrapings, and also from the pond holes and hollows in his woods the leaves and dirt, and draw and spread them in his yard or yards. This will enable him to make (by the help of twenty herd of cattle,) one hundred loads of manure; which will be fit to put on the ground the next autumn, at the rate of twenty loads to the acre; which, if ploughed in, and the land sowed with wheat or rye, and seeded with timothy seed at the same time, and clover the next spring, it will produce a burden that will be satisfactory to the owner, and the ground in better condition than when first ploughed.

It may not be amiss to mention what kind of cattle a farmer can winter on such fodder as I have spoken of. I would recommend that he buy, in the fall, young heifers of good quality, and good looking young cows; and if his situation permits, a pair or two of steers, broken to the yoke; all of which are in demand in the spring, and will advance in price sufficient to pay for the wintering, and leave for his advantage a yard full of good manure. I will also recommend attention paid to the hog-pen, and as much litter, weeds, and refuse from the garden and yards, as can be procured, and by a careful mixture of some good black earth, the quantity of manure may be swelled to a large amount. As almost all land-holders have on their farms ponds or swamps, that are mirey, I will recommend that they draw out, in the month of August, when most swamps are dry, a large quantity, and put it in a heap, and there let it lay until the next spring, when it will be fit to put on corn in the hill, and will have a very great effect. If, after the operating of the frost on the heap, the compost should crumble, and have a proportion dust, it is then good. If it should dry hard and lumpy, like clay, it is only fit to be put into the barn-yard or hog-pen, and be trodden in with the compost. By application of pond manures as above, I have been enabled to make some poor land become very productive.

As I have given some practical remarks on the making of manure, I shall now proceed to state my process of culture. I break the ground in the month of April, and have



the sod turned under by one of Freeborn's ploughs, about eight inches deep; (and here it is that many make great blunders, and much to their disadvantage, by not attending in person, and having their ground ploughed deep and well;) and then harrowed with an iron tooth harrow, or wood will do, if it be heavy, and the teeth made of good hickory, and kept sharp. Harrow the same way you have ploughed, until your ground is well mellowed; then when you see the earliest apple tree begin to drop its blossoms, furrow your ground three feet apart at right angles, and plant four grains of corn in a hill.

Almost every farmer has some method of steeping his corn before planting, and rolling it in either plaster, ashes, lime, or tar; all of which, at some times, are an advantage, and at other times a disadvantage. After my corn comes up, and is sufficiently large to be seen in rows, I commence ploughing and hoeing, and continue it until the corn begins to show signs of setting for ears, being particular to keep the plough a going in dry weather. By the above culture, I have been enabled to collect from fifty to eighty bushels per acre; and by mixing pumpkin seed, and planting it with corn, I have raised four ox-cart loads to the acre.

I have already described my method of collecting and preserving the top and bottom stalks for fodder. I shall proceed to my next crop, the next spring, which shall be corn, and a proportion of potatoes; giving the preference to corn, on account of the great quantity of fodder. And this year's tilling, I break up the sod which laid last year beneath the furrow of the corn plough; thereby I am enabled again to raise a good crop of corn, and subdue all the wild grass roots and weeds which laid at the bottom of the furrow. Third year, I split the corn hills with a plough, harrow the ground well, then plough, harrow again, and sow my oats and flax. My oats will produce about forty bushels, and upwards, per acre, depending on the season for their yielding; and my flax will average sixteen bushels of seed, and three hundred weight to the acre. I will observe, that where the ground is strong, and the oats very forward, they ought to be fed off to the ground, before they have a joint. This prevents their lodging, and gives the under oats an opportunity to come forward, which will much increase the quantity. The oat stubble and flax ground should soon be ploughed, harrowed, and cross-ploughed; then draw on your manure,

about twenty ox-cart loads to the acre ; spread and plough it in as soon as possible. If you intend to sow rye, put it in about the first of September, and sow your timothy seed after the harrow, eight quarts to the acre ; then use a roller, which breaks the lumps. It may be fed off during the fall, by calves, colts or sheep, without any disadvantage. If you intend it for wheat, sow it about the 25th of September, and follow the same method as with the rye : sow the clover in the spring, when the ground is open in cracks, about six pounds to the acre. By following the above directions, I have always realized a good crop of grain and a great crop of grass ; and the ground may and ought to remain in sod six years, before ploughed again.

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ART. III.—*On the New-Zealand Spinage ;* by MICHAEL FLOY. *Addressed to the President of the New-York Horticultural Society. Read Nov. 28, 1827.*

[FROM THE NEW-YORK FARMER.]

Sir:—I beg leave to present to the Society, to be distributed among the members, fifty papers of the New-Zealand Spinage seed, *Tetragonia expansa*. As the plant appears to be very hardy, it may be sown in the month of April, on a bed of good rich mould, two seeds in a hill, and each hill at the distance of from two to three feet ; the latter is probably the best method, as it will spread, and soon fill the bed at that distance, and the leaves will be fit to gather for use during the whole summer, and until very late in the fall ; a slight frost not materially injuring it. As it is very productive and much esteemed, it will no doubt be soon introduced into every garden. The seed was received last spring from France, by Doct. Hosack, President of the Society, and presented by him for distribution among the members. The package I received contained but two seeds, from the produce of which, I might have cut many messes. It also seems to stand the dry hot weather very well, and is in great perfection when vegetables are scarce, which is the case during the month of August. Perhaps the esculent vegetable needs very little recommendation, after the very high

encomiums bestowed on it in the transactions of the London Horticultural Society; but we may also give our opinion. Its productiveness I fully assent to, and a mess of the greens was presented to the Inspecting Committee, who, last fall had it cooked, and found it to be very fine eating, and superior to the common spinage in every respect. It was more mild flavoured, not having that rank taste of the common spinage, and as the leaf has a firmer and thicker consistency, does not shrink away so much; it has risen so much in the public estimation in Europe, that a mode of culture has been adopted to have it for use throughout the year, which may be done, and without any very extraordinary exertion. I would therefore beg leave to recommend the following mode of culture, to such as may think it worth while to have it in continual supply. I apprehend it would be necessary to have it in three crops; the *first crop*, about the middle or latter end of February.

It is common with gardeners to make hot-beds, for raising early York and other cabbage and lettuce. When these beds are made, a few smallest size pots may be filled with good mould. One or two seeds might be planted in each pot, and the pot plunged in the frame, which would require no other treatment but such as is given to the young cabbage and lettuce plants; and about the same time that the cabbage plants are fit to plant out, say the middle or latter end of April, the *Tetragonia* plants would also be fit to plant out; selecting a warm and sheltered border, well dug: each plant should be turned out with the ball of earth entire, and planted about three feet apart. It would be best to cover each hill with a bell glass, during cold weather and frosty nights, until they are well established, and the danger of frost is over; they will then take care of themselves, with the ordinary cultivation, and keeping down the weeds.—The *second crop* may be sowed the latter end of April or beginning of May, and treated as before.

The *third crop* may be sown the last week in August or first week in September, in a sheltered place, and where the plants could be protected with common frames, the glasses of which should be put on at the appearance of frosty weather, and during the winter well covered with mats or straw. The plants of this sowing ought to be much thicker; a foot apart from plant to plant, would be most eligible, the object being to have an abundant supply in as small a com-

pass as possible; they would not grow very much in the winter. By this mode of culture, which, if adopted, is not very difficult, a supply, I apprehend, would be kept up during the whole year. I need not inform the practical gardener that in very severe weather, it might be necessary to have a good lining of hot stable dung kept around the frame, and adding fresh, when necessary; although it may turn out to be much harder than we are aware of; yet practice in its cultivation can only determine this, it being rather a stranger with us at present.

As I feel pretty confident it will be found to rise in our estimation with acquaintance, and prove a valuable addition to the stock of culinary vegetables of our markets, I therefore feel a pleasure in bringing it forward to the notice of the Society.

I beg leave to apologize for being thus particular in treating of its mode of culture, knowing as I well do, that the New-York Horticultural Society contains among its members, men of the first respectability and skill in Horticulture. My intrusion of these remarks might be thought to be superfluous; but some of its members may think it useful, and if any thing I advance might tend to the promotion of Horticulture generally, or the public good in particular, I shall be much gratified.

With sentiments of esteem and respect,

I remain, Sir, your obedient servant.

MICHAEL FLOY.

*David Hosack, Esq. M. D. President of }  
the New-York Horticultural Society. }*

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*Note, by the EDITOR.*

The New-Zealand Spinage is certainly a great addition to our list of culinary vegetables. We have here given the method of cultivation recommended in New-York. Having it under cultivation two seasons, we are enabled to speak of it from our own observation; and we certainly concur in the encomiums bestowed on it. In a subsequent number, and in time for those to benefit by it, who may wish to cultivate it, we will give our experience on the the subject.



ART. IV.—*On Agriculture.*

[FROM THE WISCASSET CITIZEN.]

It is a fault too general with our farmers, that they suffer themselves to remain ignorant of important facts, which they might easily ascertain from experiment. To gratify our curiosity, we have inquired of several experienced farmers and dairy-men, what quantity of milk, of common quality, will make a pound of butter—and how much cheese a given quantity of milk would produce—and have not been able to obtain any thing like a satisfactory answer to either question. We got nothing but conjectures, and they are extremely various. Now, how easily these points might be ascertained—only by measuring two quantities of milk, and making one into butter and the other into cheese, and weighing—and how important to a judicious decision, whether it is more important to make butter or cheese.

Farmers disagree, too, very essentially, as to the comparative value of different kinds of food for the cattle and swine. One will say that three bushels of potatoes will make as much pork as a bushel of corn; another will say four, and a third, living in the same neighbourhood, will prefer a bushel of corn to six bushels of potatoes. One will say that a bushel of peas is worth five pecks of corn for the same purpose—another will prefer the same quantity of corn to peas—and a third will say they are just about equal value. One farmer will say that a ton of hay and six bushels of corn are equal to two tons of hay for keeping neat cattle—another will require seven bushels—another eight—another nine—another ten for the second ton of hay. Now it is evident those farmers have come to their several conclusions from no data to be relied on—that they have not had recourse to weight and measures—yet these disputed points might easily be ascertained to such a degree of certainty as would render the farmer essential aid in profitably applying his labour and disposing of its effects.

We venture to suggest the following easy and cheap experiments: Let one farmer select two shoats as near alike in age and size and condition as may be, weigh them, make a record of the weight of each, shut them up in separate apartments—measure, or rather weigh out (as there is a con-

siderable disparity in the quality of corn, and some variety in the rule for measuring potatoes) a quantity of Indian corn meal for one, and a quantity of potatoes for the other—after properly feeding each with his appropriate food for some weeks, weigh them again, and record the quantity of food consumed by each, and the increase in weight of each. In like manner let an experiment be tried by the same farmer, or his neighbour, on two other shoats, feeding one with peas and the other with meal and potatoes mixed. Let a farmer select from his neat stock, two animals as near alike in age, size and condition, measure them as a farmer does his oxen, if weighing be impracticable, feed them separately, weighing a quantity of hay to one, and half the quantity to the other, with as much meal as may be judged enough to supply the deficiency; after a sufficient time, measure or weigh them again—record the result with such observations as circumstances may suggest. To arrive at a greater degree of certainty, it would be well to repeat these experiments. Their utility must be obvious, and if any of our agricultural friends should be induced to try any or all of them, and will acquaint us with the results, we shall take pleasure in giving them publicity in the “Citizen.”

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ART. V.—*Valuable Practical Information and Hints on the Culture of the Vine*

[FROM THE AUTHOR OF “COXE ON FRUIT TREES.”]

Burlington, July 22. 1828.

J. S. SKINNER, Esq

Sir :—The cultivation of the vine has become so important to the health, morals and prosperity of our country, that I cheerfully comply with the wishes of some respectable friends, by communicating to you the result of numerous experiments, made under my own observation, in engrafting various kinds of delicate foreign grapes and superior varieties of our domestic grapes, on the more vigorous stocks of cultivated vines, or on the native vines of our fields, or trans-

planted native vines, removed from our hedge rows into our gardens at the moment of engrafting. The process is extremely simple, and as far as I can learn from inspection of the most approved English and French writers, and from inquiry of intelligent foreigners, is not practiced in Europe. It is performed by inserting a scion, of the usual size for planting, in the root or stock, under the surface of the earth, covering it with earth, raised round the stock high enough to protect the scion, which is about six inches long, with two eyes only, the upper one to be even with the top of the little hillock raised around the plant. No clay or composition is necessary. The stock must be at least one inch in diameter, at one or two inches above the crown of the plant, when bared to the first roots, it must be sawed off at that point. The stock is to be carefully split, after the loose bark is scraped off, and if necessary, opened by a wedge; the scion, when firmly fixed, will be retained in its place by the pressure of the stock, after the wedge has been withdrawn or cut off. The time for engrafting is the same as for the apple—about the 1st to the 10th April in this state. In two or three weeks the buds will sprout. One only must be permitted to grow; it must be trained to a stake, and kept pruned of lateral shoots. In a good soil it will grow ten to twelve feet the first year; after this it may be cut down to two or three eyes, or trained at greater length to a trellis, according to its strength. They invariably bear fruit the second year, and frequently will produce one or more bunches the first year. This, however, should not be permitted, except from a wish to ascertain the quality of the fruit. It is now about six years since the first attempt of an intelligent neighbour in this mode of engrafting was exhibited to me, after repeated failures of the ordinary mode of engrafting above the surface, with the aid of clay and composition. I had experienced similar failures in my own experiments, owing, I presume, to the greater flow of sap in our climate. I have now growths of at least ten feet from grafts of this spring, exhibiting a luxuriant growth of a single bunch of grapes. When the stock is sufficiently large, two scions may be inserted, and if successful, may be reduced to a single stock, or one of them may be laid down by training, about six inches under the surface, to form another vine, which, the second year, will be nearly equal in strength and productiveness to the parent vine. From

the facility with which this operation may be performed, and the short interruption it creates in the bearing, it will be easy to change any number of vines from unproductive and inferior kinds, to such as may be adapted to the soil, climate and object of the cultivator. Foreign and tender kinds may be speedily acclimated, and an early diffusion of the finer kinds through our extensive country may be accomplished, wherever native stocks are to be found.

I believe this mode of engrafting will be new to the greater portion of our readers; it certainly is unnoticed by the Abbé Rozier, by La Nouvelle Quintyne, by Miller and Forsyth, all of whom I have consulted—and a highly intelligent friend, a native of France, possessing large estates in that country and in the United States, assured me, after careful inspection of my vines, that it was perfectly new to him, and would encourage him to introduce it in his extensive plans of improvement, to which he is devoting much of his ample means.

I am, respectfully and truly,

Your friend and obed't serv't,

WILLIAM COXE.

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#### ART. VI.—*Lucerne.*

[FROM THE NEW-ENGLAND FARMER.]

Mr. David Beal, of Kingston, Ms. informs us that he sowed two pounds of *Lucerne*, in the spring of 1827, which yielded him two heavy crops the first season. It was sowed with oats, and red top. In 1828 it was mowed on the 20th of June; on the 11th of July the second crop was cut, when it was twenty-one inches high, having grown one inch per day, since the first mowing. It grew rapidly for the third crop, and was in flower when circumstances obliged him to turn the field into pasture. Horses, cows, and all kinds of stock, gave it a decided reference to other grasses.



### PART III.

#### MISCELLANEOUS AGRICULTURAL ITEMS.

##### PROCEEDINGS OF THE ST. JOHN'S COLLETON SOCIETY.

At the Anniversary Meeting of the Agricultural Society of St. John's, Colleton, held at the Club-House, on Edisto Island, on the 9th of July, the following gentlemen were elected officers for the ensuing year—to wit:

BENJAMIN BAILEY, *President*,  
 JOSEPH EDINGS, *Sen. Vice-President*,  
 JOHN TOWNSEND, *Corresponding Secretary*,  
 WILLIAM SEABROOK, *Treasurer*,  
 JOSEPH E. JENKINS, *Recording Secretary*,  
 E. M. SEABROOK, Jr.  
 WILLIAM M. MURRAY,  
 JOHN JENKINS,  
 CATO A. BECKETT,  
 DR. EDWARD MITCHELL,

} *Committee of Inspection:*

##### BARNWELL DISTRICT FARMER'S SOCIETY.

The Farmer's Society, of Barnwell District, at their late meeting, on the 20th ult. agreed to the following resolution:

*Resolved*, That each Member of this Society appear, at the Anniversary Meeting in January next, in Cloth of Domestic Manufacture; and, as far as practicable, in that of his own household.

The Society elected A. PATTERSON, W. J. DUNCAN, GASPER J. TROTTI, WM. H. HAY, and O. D. ALLEN, Esqrs. Delegates to the United Agricultural Society.

A fine stalk of Sugar Cane, which contained fourteen joints, and apparently had fully matured, was exhibited to the Society by one of the Members, (William Provost, Esq.) who had cultivated it from plants obtained from Thomas Spalding, Esq. of Georgia. The piece of cane from which this stalk was taken, is now (8th November,) in full vegetation; notwithstanding the severe frosts of the 16th and 17th October.

*The Chinese mode of preserving Rice after it has been Pounded.*

Extract of a letter from a gentlemen in Boston, to his correspondent in Charleston, South-Carolina.

"Perhaps it will be new to you to hear an account of the manner the Chinese preserve their rice from Weevil and musty powder, viz: Take about two pounds of charcoal, cracked in small pieces, roll it up in thin paper, and place it in the centre of a tierce of rice, and it will preserve it much longer than any thing I have ever seen tried."

The letter was accompanied with specimens of Chinese rice, in the rough, (what is called paddy,) also, a specimen of the same rice, well pounded or milled in China, of a good quality, free from red.

*Sugar.*—The numerous experiments made on the sugar cane, this year have succeeded admirably. It has been successfully grown in the vicinity of this place, and if we could rely on the experiments of one year, we would say to our planters, engage at once in the cultivation. But we wish not to mislead, and although success has crowned the attempt, yet we should not be too rash in venturing too largely on it; other years and other seasons may give different results, though we are decidedly of an opinion, from all we can learn, that sugar will ere long be one of our staple articles. Let our planters, in the mean time, be engaged in procuring seed. This will be best accomplished by obtaining a small quantity the present season, and cultivating it the coming year. The stock will be increased, and the knowledge gained will be of much importance, should the future trials be equally successful. Even should we be disappointed, (which we do not anticipate,) yet the time and labour will be well repaid, were it used as food for cattle, (vide Mr. Spalding's communication, page 61, and Mr. Sam's, page 402.) As we expect to be favoured with some communications on the subject, we will here dismiss the subject by merely stating, that it has been grown around Augusta to the height of from sixteen to twenty joints, and has been cultivated considerably higher up the country. We had the pleasure of seeing it on Mr. Maverick's farm, in Pendleton, and by an article in the Newbern paper, we learn it has been grown there this season with such success as to induce them to think it may be worthy of the attention of the planters of that neighbourhood. It has been cultivated on high sandy soil, and as many experiments have been made in different sections of these States, with the same result, we are led to believe that low, or swamp lands, are not indispensable for it.

*Okra Rope.*—We have been favoured with a specimen of the fibres of the Okra, prepared by Mr. John Robertson of this place, in the manner of hemp. It is soft and silky in its appearance,

and the length of its fibres is about six feet. The appearance is that of the manilla, and would no doubt make a rope similar to it. As the Okra grows with great luxuriance, and is even now considerably cultivated for soups among us we may with much ease make the experiment, and ascertain how far it may be worthy of our attention.

*Indian Corn in England.*—The celebrated William Cobbett has this year planted eleven acres of Indian corn in England, where all attempts to grow it hitherto in the open ground, have failed. In a letter contained in one of the London papers, he states that he has succeeded in its cultivation, and expects to to raise one hundred bushels to the acre—he invites the farmers generally, to call and inspect it. He does not state the variety, nor where obtained, but we rather suppose it to differ from what we have, as he requests them to notice the difference between that and some from America, planted at the same time.

*Wilmot's superb Strawberry.*—This Strawberry is stated, in an advertisement in the "*Gardener's Magazine*," to be from six to eight inches in circumference, and to weigh from one to two ounces. The conductor of that Magazine, in a subsequent number, says, "The large size of this fruit, (Wilmot's superb) and Keen's seedling, will materially alter the character of the strawberry as a desert fruit, and rank it with plums and peaches: for hundreds that were required formerly to make a dish, tens will now suffice." The largeness of this strawberry is also confirmed in the transactions of the London Horticultural Society. We are happy to find that Mr. Prince, of the Linnean Botanic Garden, has got these plants growing in his garden, on Long-Island.

When peas, French beans, and similar produce, do not boil easily, it has usually been imputed to the coldness of the season, or to rains. It is stated in the "*Bulletin des Sciences*," that this popular notion is erroneous—the difficulty in boiling them soft arising from a superabundant quantity of gypsum imbibed during their growth. To correct this, we are told to throw a small quantity of subcarbonate of soda into the pot along with them, the carbonic acid of which will seize upon the lime in the gypsum, and free the legumes from its influence

## AGRICULTURAL WORKS.

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An **ADDRESS** delivered in Charleston, before the Agricultural Society of South-Carolina, at its Anniversary Meeting, on Tuesday the 19th August, 1828. By Elias Horry, a Member.—Charleston, 1828. Pamphlet, pp. 40.

An **ADDRESS** delivered on Edisto Island, before the Agricultural Society of St. John's, Colleton, at its Anniversary Meeting, on Wednesday, the 19th July, 1828. By John Townsend, Corresponding Secretary. Charleston, 1828. Pamphlet, pp. 51.

A **METHODICAL TREATISE** on the **CULTIVATION** of the **MULBERRY TREE**,; on the **RAISING** of **SILK WORMS**, and on winding the Silk from the Cocoons. United to an accurate description of the Winding Mill. With Plates. Abridged from the French of M. De la Brousse; with Notes and Appendix. By William H. Vernon, of Rhode-Island. Boston, 1828. 8vo. boards. For sale by A. E. Miller. Price \$1.

The **QUARTERLY JOURNAL** of **AGRICULTURE**, and the Prize Essays and Transactions of the Highland Society of Scotland. Edinburgh, in 8vo. Nos. 5s. 6d.

On the **CULTURE** and **USE** of **POTATOES**; by the Right Hon. Sir John Sinclair, Bart. &c. Edinburgh. Pamphlet, pp. 100.

A **DISSERTATION** on the **NATURE** of **SOILS**, and the **PROPERTIES** of **MANURE**. To which is added, the Method of making a Universal Compost. Edinburgh. 8vo. pp. 60.

The **FARMER'S LIBRARY**, a Series of Essays and Papers for the Promotion of the Study of Agriculture. By E. L. Lathrop, Esq. Windsor. 12mo. pp. 500.

**DISCOURS SUR L'IMPORTANCE DE L'HORTICULTURE**, et sur les Avantages de son Union avec les Sciences Physiques. Par M. le Chevalier Soulange-Bodin. Paris.—Pamphlet. 8vo. pp. 20.

**ANNALES** de la **SOCIETE D'HORTICULTURE**, de Paris, &c. Paris, in 8vo. Livraisons. Monthly 15fr.

**ADDRESS** read before the New-York Horticultural Society, at the Anniversary Celebration, on the 28th August, 1827.—New-York. Pamphlet. 8vo. pp. 22.



# INDEX TO THE FIRST VOLUME.

	A.	PAGE.
Aboriculture, Definition of	-	33
Agricola, on the Vine, Silk-Worm, and Sugar-Cane,	-	266
"    "    Spinning Machine,	-	548
Agriculture, Reflections on	-	61
"    of Louisiana,	-	234
Agricultural Establishment of France,	-	46
"    Hints, by a Clodhopper,	-	495
"    Journal. Necessity of their being supported by contribu-	-	213
tions from the Agriculturists,	-	214
"    Journal likely to do much good,	-	140, 518
"    Society of South-Carolina, Preceedings of	-	187, 567
"    St. John's Colleton,	-	284
"    St. Paul's Parish,	-	476
"    St. Helena Island,	-	17
"    Rescources of South-Carolina,	-	48, 96, 144, 192, 240, 288, 336, 384, 432, 570
"    Works, List of	-	94
"    Chinese	-	442
Air, Atmospheric, Influence on Vegetation,	-	520
"    Plant of China,	-	18
Almonds, soft shelled, cultivation recommended,	-	286
"    Laurel	-	94
Aloe, American	-	142
Animal Gratitude,	-	503
Apple Trees, Experiment on protecting the stems of	-	189
Artichoke. Extraordinary one,	-	367
Ashes, Quantity used per acre,	-	368
"    Time of using	-	ib.
"    compared with Stable Manure,	-	442
Atmospheric air, influence on vegetation,	-	443
"    "    indispensable for the roots of plants,	-	
	B.	
Barnwell, Edward, on the Culture of Sugar,	-	485
Barnwell Farmers' Society, (See Farmers' Society.)	-	
Bees,	-	94, 383
"    New method of watching	-	93
"    great product from a hive,	-	224
"    Management of	-	225
Beets, Sugar from	-	335
Beef, Salt, quantity exported from the United States,	-	360
Bellinger, Dr. J. S. on the cultivation of the Potatoo,	-	400
Birds, Taking of, with spring-nets,	-	496
Blanding, A. on the floating brick,	-	462
Bones, Employment of, as a manure,	-	94
Borage recommended as a manure,	-	92
Bassard, Joseph. on the cultivation of Rice for seed,	-	115
Brick, floating, Description of	-	462
Brief observations on Cotton, Rice, Sugar-Cane, Grape-Vines, Silk-	-	
Worms, and Olives, by Thomas Spalding,	-	57, 106
Broom, White, Bees fed on, produce superior honey,	-	383
Burning Steppes in Siberia,	-	95
Burden, Kinsey, on fine Sea-Island Cotton,	-	123
Butter, Making of,	-	272, 273, 276
"    Churning of	-	275
"    Salting of	-	276

## C.

	PAGE.
Cabbage, Cow, Account of	334
“ Turnip, “ “	335
Calhoun, J. E. on the recuscitation of Clover,	330, 398
Calves, remarkable ones,	47
“ Rearing of	274
“ Selling of, by weight,	428
Camphor Tree, will restore vegetable life,	430
“ Tree, may be grown in the Southern States,	350
Camellias can be raised near Charleston,	18
“ one of the spices used for flavouring Tea,	ib.
Candleberry Myrtle, (See Myrtle.)	
Canes excellent food for cattle,	286
“ , Sugar (See Sugar-Cane.)	
Capers, Dr. C. W. on the Cotton Catterpillar.	203
Caper, of commerce, method of preparing	19
“ plant, Description of	ib.
“ “ grows without cultivation in warm climates,	ib.
“ “ may be raised from seed or suckers,	ib.
“ “ Roots of, last from twenty to thirty years,	20
Carolina Planter, on double crops of Indian and Guinea Corn,	209
Castor Oil, Process for making	301
Caterpillars in an Orchard, How to destroy	191
Catterpillar, Cotton, Description of	203, 206
“ “ First apperance of, in South-Carolina,	204
“ “ Destruction of Cotton crops by	205
Cattle, Number of, exported from the United States,	360
“ Market near Charleston recommended,	ib.
“ Slaughter house for, ought to be established near Charleston,	361
“ Large supplies of, might be furnished by South-Carolina for the West-India market,	ib.
“ Pens in Jamaica, Quantity of manure made in	426
Chartrand, Philip, on the cultivation of the Sugar Cane,	211
Charcoal used by the Chinese to preserve pounded Rice,	568
Chinese work on Agriculture and Gardening,	94
“ Tallow Tree, Product from, equal to the melted fat of animals,	287
“ mode of preserving pounded Rice,	568
Churning of Butter,	275
Cinnamon Tree, will grow in Florida,	350
Circular respecting fine Sea-Island Cottons, by Whitemarsh B. Sea- brook, Esq.	120
“ “ Rice, by W. Washington, Esq,	166
“ “ Silk, by the Secretary of the Treasury,	338
“ Addressed to the Agricultural Societies of South-Carolina, by the President of the United Agricultural Society of S. C.	188
City Rustic, on the Agricultural resources of South-Carolina,	17, 359
“ “ Pounding of rough Rice	351
Claiborne, J. H. on the cultivation of Rice,	309
Clarke, vs. sundry persons, Report of case	362
“ G. J. F. on cultivating Spanish Tobacco,	257
“ on Manures,	439
Clover and Straw, in alternate layers, make good fodder,	143
“ , Cultivation of, by H. Rose,	249, 346
“ , Time of sowing	250, 347
“ , Quantity of, seed per acre,	250
“ , Note on	ib.
“ grows luxuriantly during winter,	251
“ , Recuscitation of	330, 399
“ , Clay best adapted for the growth of	347
“ Product of, at Pendleton,	400

	PAGE.
Clover, New species of	220
Clodhopper, Hints by	495
Cochineal, Insect, Introduced into Senegal,	191
“ “ Applying of, to the plant,	327
“ “ Length of time of maturing,	328
“ “ Two crops attempted in one year,	ib.
“ “ Preparation of, for market,	ib.
“ “ Exportation of	328
“ “ Casualties attending,	329
“ “ Preparation of the seed,	ib.
“ “ Note on,	338
“ “ may be found on the Sea Islands,	495
“ Plant, or Nopal, description of	326
“ “ Cultivated exclusively in Central America,	ib.
“ “ Planting of	327
“ Crop, estimate of expense the first year	ib.
“ “ Distinction made in	328
Cockroaches, To clear a house of	429
Coffee Plantations, Elephants employed in cultivating	287
Coffin, Thomas A. on fine Sea-Island Cottons,	122
Composition for coating wood exposed to the weather,	185
Corn, Indian, On the substituting of the plants for hay,	138
“ “ Advantage of Cultivating among Cottons,	59
“ “ Cultivation of	309, 347, 530, 533, 558
“ “ and Guinea, successfully cultivated together,	209
“ “ Selection of seed,	423
“ “ Should be alternated with Cotton,	530
“ “ Should be planted early,	ib.
“ “ Early planted, will wait longer for rain,	ib.
“ “ Planted wide, the most certain crop,	ib.
“ “ “ close, yields most in favourable seasons,	ib.
“ “ Cannot be planted as thick in South-Carolina as in Virginia,	531
“ “ Proper distances for	ib.
“ “ Experiment on planting	534
“ “ Cutting and curing of the stalks for fodder, Advantages of	557
“ “ “ “ “ method of doing, ib.	
“ “ Cultivated by Cobbett, in England,	569
“ Guinea, planted between Indian Corn, Advantages of	209
“ “ “ “ “ Product of	210
“ “ Negroes, fond of	169
“ “ Injurious to cattle,	494
Cotton, Sea-Island, or black seed, Cultivation of, on marsh land,	20
“ “ Liable to blue rust on marsh land,	23
“ “ Successfully grown on marsh land,	21, 29
“ “ Uncertain crop on marsh land,	162
“ “ Finest quality yielded by marsh land,	ib.
“ “ Unsuccessful attempt to grow on marsh land,	ib.
“ “ Seed, Selection of	31, 76, 121, 122, 124, 164, 172
“ “ Seed, Preservation of	121, 122, 125, 172
“ “ “ excellent manure for sweet Potatoes,	163
“ “ “ Change of, beneficial,	32
“ “ Soil best adapted for yielding the	120, 122, 124, 126
“ “ “ finest qualities,	162, 172, 173
“ “ Manuring of	75, 76, 78, 120, 122, 124, 162, 299
“ “ Salt mud excellent manure for	29, 120, 124, 162, 172
“ “ “ marsh “ “ “	122, 124, 162
“ “ Salt atmosphere necessary for	157
“ “ Method of cultivating on St. Simon’s	59
“ “ “ “ in the Parish of St. Helena,	152
“ “ Secrets of revealed	164, 298

	PAGE.
Cotton, Sea Island, Listing of ground for	299
" " Draining of land for	ib.
" " Banking of Land for	299
" " Planting of	300
" " Hoeing, and thinning	ib.
" " Gathering of the crop,	121, 122, 125, 172, 300
" " Drying of	121, 123, 125, 172, 301
" " Preparation of, for market,	121, 123, 125, 172
" " Whipper used in preparing,	121, 123, 126, 172
" " Quantity, produced per acre,	121, 124, 172
" " " to the Hand,	122, 172
" " Deterioration of the quality,	75
" " Diminution of the quantity per acre, cause of	77
" " On the high prices of	155
" " Queries and Answers relative to	121
" " Prolific, discovered, by Mr. Freeman,	31
" Upland, or Green seed, manured with Lime,	118
" " Requires less labour than Corn,	530
" " Proper distances for	531
" " From Rattoons,	383, 408
" " Remitted from South-Carolina to China,	490
Cooper, B. B. on Manures,	367
Couper, John, on the Cultivation of the Olive, &c.	302
Cow, Dwarf and Mammoth Ox	141
" s, Care and management of	185, 271
" s, Quantity of food, proper for	185
" Should be milked near the Dairy,	272
" Butter from	376
" Mortality among	493
" Tree, Account of	46
" Tree, of Carraccas, Milk from	191
Coxe, William, Hints on the Cultivation of the Vine,	564
Cultivation without Dung	46
Cucumbers, Cultivation of, in Russia,	474
" Salting and Preserving of, Receipt for	ib.
Currants, or Corinthian Grapes, recommended to be grown in South-Carolina,	20, 319
" " " Method of planting	20
" " " Prefers the vicinity of the sea,	20, 313
" " " Method of drying and preparing for market.	20, 316
" " " Importation into the United States,	20
" " " Description of	312
" " " Soil best adapted for the cultivation of	313
" " " Cultivation and management of	315
" " " Curing of, for Currants,	316
" " " Estimated value of	ib.
" " " Should be introduced into the United States,	317
" " " Vines, Preserving of, during the voyage,	ib.
Curr, William on the Cultivation of Strawberries,	506
Cuthbert James, on the Management of Plantations,	66
" " on the Culture of Corn,	347
Cuttings, Grape Vine, Choice and Planting of	97
D.	
Dairies, Swiss, Account of	143
" Situation and Buildings proper for	231
" Great cleanliness requisite for	ib.
" Construction of	ib.
" Advantages of connecting an Ice House with	232



	PAGE.
Dairies, Utensils necessary for	233
" Management of, in Devonshire,	375
Dickson, Dr. S. H. on Mortality among Cows,	493
Distillation from Plumbs,	47
" Cotton Seed,	238
Duncan, J. G. W. on the Cultivation of Corn,	309
Dung, From the Farm Yard, Management of	39
" Preparation of	ib.
" Time of Manuring with	40
" Quantity to be used,	ib.
" Injured by Exposure,	ib.
" Fresh, injurious to Turnips,	ib.
" " to Small Seeds,	42
" " Some Plants, thrive best in	ib.
" Season for applying,	ib.
" From Swine, how to increase	ib.
" " Value of for Irish Potatoes,	ib.
" Cultivation without	46
E.	
Enclosing of Fields, Method of doing in Oglethorpe County, Geo.-	307
" " " Ditches used for, Size of	ib.
" " " " Cost of	308
" " " China Berries and Cherokee Roses, recom- mended to be planted on the top of the banks	307
Elephants used in cultivating Coffee plantations,	287
Elliott, William, Reflections on Agriculture,	61
" " On the cultivation of Indigo,	ib.
" " the cultivation and high prices of Sea-Island Cotton,	151
Enemy of Secrets, on the cultivation of Cotton,	164, 298
Engravings of Sugar Mill,	364
" Salt vats,	396
" Pump, worke' with sails,	ib.
Establishment, Agricultural, of France,	46
" Prince's, Account of	538
Estates, Embellishing of	537
Evergreens, Cuttings of, succeed best in summer,	520
Experiment with Rye and Stable-manure, as manures for Corn,	46
" On Irish Potatoes,	220, 228
" " protecting the stems of Apple trees,	503
" " pounding of Rice, by C. E. Rowand,	351
" " substituting the culture of other grain in lieu of Rice, by General Thomas Pickney,	464
" 's, On the necessity of making	563
F.	
F. on Embellishing of Estates,	537
Farms, Pennsylvanian, Great Product of	45
Farm Yard Dung, Management of	39
" s, Cost of Manuring, in England,	90
" Royal,	92
" s in Chili, Great number of Cattle	190
Farmer, A, on Management of Bees	224
" 's Society of Barnwell, proceedings of	223, 430, 567
" " List of Officers	430
Fields, Keeping Cattle off recommended	70
" Enclosing of	307
Figs, easily cultivated in Louisiana,	237
" Tree, Remarkable Experiment on	443
Florida, Blackpepper Plants and Cinnamon Trees will grow in	350
Floriculture, Definition of	33
Floy, Michael on the Cultivation of New Zealand Spinage,	560

	PAGE.
Fodder from Indian Corn, recommended, - - -	190
“ from Indian Corn, Substituted for Hay, - - -	138
Fougere, Marquis de, on the Manufacturing of Indigo, - - -	475
Fourcroy, on the Philosophy of Vegetation, - - -	509, 511
Frost, injurious to the Young Shoots of Grape Vines, - - -	197
“ Light, does not injure the Sugar Cane, - - -	237
Fruit, Large - - -	90
“ Trees, protecting the Stems, Good effect of - - -	593
“ “ Apple, Experiment on - - -	ib.
“ “ Injured by exposing the roots of - - -	505
“ “ Retarding the Blossoming of - - -	ib.
“ “ Protecting of - - -	ib.
“ “ Easy method of propagating - - -	521
“ Varieties of, recommended to be tried, - - -	593
Fulton, George on Watering Vegetables - - -	138
G.	
Garden, Kitchen, Formation of - - -	34
“ Situation of - - -	ib.
“ Entrance to - - -	36
“ Bird's eye view of - - -	37
“ Exposure of - - -	ib.
“ Culture and Management of Soil, - - -	81
“ Trenching of vacant ground - - -	ib.
“ Soil, Conserving the Fertility of - - -	ib.
“ Manuring of - - -	83
“ Cropping of - - -	86
Gardening, as practised in Britain, - - -	32
“ Description of the different classes - - -	33
“ Want of information in South-Carolina - - -	539
Gardener, a Denbigshire, on the Culture of the Irish Potatoo, - - -	225, 280
Gardenia, Easy method of propagating - - -	519
Gibbes, Geo. M. on the Cultivation of Indigo, - - -	110
Gilzer vs. Goodrich, Report of case decided in the Constitutional Court of South-Carolina, - - -	361
Goddard, T. F. on the Culture of Rice, - - -	498
Grain, Preservation of, from mice - - -	191, 428
“ Small, should not be sown twice on the same land, - - -	530
“ Ground for, should be harrowed before planting and not after, - - -	ib.
Grasses, Artificial, on the Cultivation of - - -	550
Gratitude, Animal - - -	142
Grasses, Crowfoot, Great Production of - - -	550
“ Crop or Crab, makes excellent Hay, - - -	551
Grapes injured by the immediate action of the rays of the sun, - - -	450
“ Rotting of, attributed to insects and hot steam from the ground, - - -	195
“ Mashing of, for making of Wine, - - -	246
“ “ Description of Machine for - - -	ib.
“ Corinthian, (see Currants.) - - -	
Green, William on raising the Vine from layers, - - -	374
H.	
Hail Storm, account of an awful one, - - -	285
“ Stones, weight of some - - -	ib.
Halstead, Philemon, on Cutting of Oats, Corn, &c. - - -	557
Hams, loss of weight in the drying of - - -	429
Hare, Robt. on the Saccharum of Sweet Potatoes, - - -	377
Hay, Substitutes for - - -	138
Hazzard W. W. Hints, on Agricultural Subjects, - - -	251
Herbemont, N. on the Culture of the Vine } and Making of Wine, } 1, 49, 97, 145, 193, 241, 289	

	PAGE.
Herbemont's, N. Memorial of, Report on, by the Committee on Agriculture	43
"    On the Chickasaw Pea,	213
"    On Artificial Grasses,	549
Hemp, on the Culture of	516
"    Soil, proper for	516
"    Seed, saving of	517
"    Recommended to be sown in South-Carolina,	516
"    New Zealand, account of	93
Hogs, weight of, in North-Carolina,	141
"    Number, exported from the United States,	360
Horticulture, Definition of	33
"    In and around New-York, account of	331
Hot-beds, making of	521
"    Materials proper for	522
Hydrometer, Use of, in the Manufacturing Sugar	554
I.	
Indigo, on the Cultivation of	61, 432, 475
"    Quantity, imported into the United States,	64
"    Profit from the Cultivation of	64, 448
"    and Cotton, Comparison between the profits of	65
"    On the Manufacturing of, from the Dried Leaves on the	
Coast of Coromandel,	110
"    Time of Cutting the Plants	113
"    Improvement in the Manufacture of	ib.
"    Soil proper for	114
"    Quantity, made per Acre	115
"    Gathering, of, the Leaves	475
"    Drying, of, the Leaves	476
"    Dryers for, Description of	476
"    On the Manufacture of, from the Dry Leaves,	480
"    Workshop, Description of	ib.
"    Bengal, Superiority of, what owing to,	484
Influence of Salt on Vegetation,	92
Interleaves, Definition of	99
"    Should not be Suppressed,	ib.
Introduction,	1
"    of Vignerons from Europe into the Southern States	
"    recommended,	202
Jefferson's Thos. Remarks on the Olive,	366
Johnson, C. W. on the Use of Salt,	319
Jones, A. on Fences and Enclosing of Fields,	306
Jones, Calvin, on Selection of Seed Corn,	423
K.	
King, Roswell jun. on the Cultivation of Rice,	409
"    "    On the Management of the Butler Estate,	524
L.	
Lands, Propriety of Manuring in preference to Clearing	68, 441
"    Clearing of. Indiscriminately condemned,	69
"    Great product from 1½ acres	429
"    Brackish, Reclaiming of	533
"    Rice, (see Rice Lands)	
Landscape Gardening, Definition of	33
Laurel Almond,	286
Leaves, Fall of	475
Legislative Patronage should be extended to Agriculture,	433
Life, Vegetable, Restoration of	475

	PAGE.
Light, Effect on Vegetation, . . . . .	569
Lime recommended to be used on Salt Marsh Land . . . . .	24
" Used as a manure for Cotton, . . . . .	118
" Beneficial on Rice land, . . . . .	269
" Reclaims salt spots on Rice land, . . . . .	ib.
" Necessary for the raising of Peas, . . . . .	424
" Should be used in Silk establishments, . . . . .	342
" , Experiment with . . . . .	369, 424
" More valuable than Plaister as a manure, . . . . .	369
" Quantity to be used per acre, . . . . .	ib.
" " of, used in manufacturing Sugar, . . . . .	554
List of Agricultural Works, (See Agricultural Works,) . . . . .	
Louisiana, Sketch of the productions of . . . . .	235
" Soil and climate not better for Sugar than Georgia, . . . . .	525
Lucern, Product of . . . . .	566
<b>M.</b>	
M. on Root Potatoes, . . . . .	163
M'Coy, James, on the cultivation of Sugar Cane, . . . . .	177
Machine, Rice, Account of . . . . .	425
" Pope's, Hand Thrashing . . . . .	280
" Family Spinning, Description of . . . . .	548
Management of Plantations, . . . . .	66
" " the Butler Estate, . . . . .	523
Manure, Farm yard, Management of . . . . .	39
" " Increasing of . . . . .	558
" From Swine, How to increase . . . . .	42
" " Valuable for Irish Potatoes, . . . . .	ib.
" Borage, recommended for . . . . .	92
" Bones, used as . . . . .	94
" Cheap and efficacious . . . . .	239
" Ashes, valuable for . . . . .	367
" Stable, compared with Ashes, . . . . .	368
" Street, more certain than Ashes or Stable . . . . .	ib.
" Quantity made in the Jamaica cattle pens, . . . . .	427
" Oyster Shells, Value of . . . . .	ib.
" Operates as a leaven in the soil, . . . . .	439
" Should not be rotted, . . . . .	ib.
" Vegetable, should be buried in their freshest and most succulent state, . . . . .	ib.
Manuring of land preferable to clearing, . . . . .	68
" " Cotton, . . . . . 76, 78, 120, 122, 124, 162, 299	
" " Farms in England, Cost of . . . . .	90
" " Old land preferable to clearing new, . . . . .	441
Maunfacturing in the South objected to, . . . . .	357, 404
" " " Arguments against . . . . .	ib.
" " of Cotton Bagging and coarse Cloths in the interior of Georgia recommended, . . . . .	435
Market Cattle, advantage of having one establishment near Charleston, 360	
Marsh lands, Salt, Cultivation of Cotton on . . . . .	20, 29, 162
" " Preparation for planting . . . . .	21
" " Cotton planted on, liable to the blue rust, . . . . .	23
" " Experiments on, to destroy the blue rust, . . . . .	ib.
" " Lime recommended to be used on . . . . .	24
Matthewes, J. R. On fine Sea-Island Cottons, . . . . .	173
Melons. Water, Cultivation of, in Russia, . . . . .	473
Miller, Rev. Dr. on the cultivation of Strawberries, . . . . .	468
Milk, Management of . . . . .	271
" Quality of, depends on the food, . . . . .	ib.
" Last drawn the best, . . . . .	272



	PAGE.
Milk should be put into the pans as soon as milked,	273
" From each Cow should be kept separate,	ib.
Mocking Birds destructive to Grapes,	305
Morrison, R. T. on keeping of Potatoes,	454
Mud, Salt, successfully used as a manure for Cotton, 29, 76, 120, 124, 162, 172	172
" Preferred as a manure for Cotton,	59
" Should be thrown into heaps before using,	44
Mulberries, Black and white, good for Silk-worms,	107
" Olive and Orange, Climate of, in Europe,	108
" Product of, foliage from	132, 341
" Training Grape Vines over	199
" Trees, Raising of	287, 339
" All the varieties of, grow in Georgia,	ib.
" Raising of, from seed,	ib.
" Stripping often injurious,	845
" Cultivation should be encouraged by Congress,	391
Munnerlyn, Charles, on the cultivation of Rice,	215
Myrtle, Candleberry, Description of	324
" Obtaining of the Wax from	ib.
" Experiments on	325
N.	
Negro drivers should support their dignity,	527
Nettles, On the use of	91
Negroes, Management of	423
" Food for, should be cooked,	426
New-Zealand Hemp, Account of	93
Nopal, (See Cochineal Plant.)	
Notes on the Cattle Market,	360
" Resources of South-Carolina,	17, 359
" the Southern States,	434
" Cultivation of Cotton,	58
" Rice,	60
" Sugar Cane,	60, 182, 212, 267
" Grape-Vines,	61
" Silk-Worms,	106
" Irish Potatoes,	227, 318
" Clover,	250
" Spanish Tobacco,	265
" Olives,	302
" Currants,	319
" Cochineal,	330
" Sweet Potatoes,	454
" Floating Brick,	464
" Mortality among Cattle,	494
" Agricultural Hints,	497
" Protecting the stems of Fruit Trees,	504
" Strawberries,	470, 508
" Manufacturing Castor Oil,	202
" Salt,	393
Novice in Agriculture, on the Wolf in Cattle,	170
O.	
Oats, broken in a mill excellent food for Horses,	190
" Advantage of cutting, when the stalk is in part green,	557
" Cultivation of	559
" When forward, should be fed off before jointing,	559
Oil, Castor, Process for making	301
Okra Rope, Account of	568
Olea Fragrans might be cultivated near Charleston,	18
" Used for giving a flavour to Tea,	ib.

	PAGE.
Olea Fragrans would be purchased by the Tea merchants,	18
Olives, Gathering of, in Portugal,	426
Olive Trees not injured by the cold of 1826,	108
"    "    Mulberry and Orange, Climate of, in Europe,	ib.
"    "    Will grow as far north as Charleston,	ib.
"    "    Soils proper for	ib.
"    "    Cuttings, Size of	109, 304
"    "    Method of Planting,	ib.
"    "    Bulbs, good for Planting,	109
"    "    Note on	303
"    "    Recommended to be raised in the Southern States,	ib.
"    "    Durability of,	ib.
"    "    Culture of,	304, 459
"    "    Other crops may be grown between,	304
Olive, Willow, stands the frost better than any other variety,	ib.
"    Remarks on, by Thomas Jefferson,	367
Onions, Potatoo, Account of	287
"    Prolific or Tree, Description of	473
"    "    Method of Planting	ib.
Orchard, How to destroy Caterpillars in	191
Oven split by the growth of a Pride of India Berry,	442
Ox, Mammoth, and Dwarf Cow, Account of	141
Oxen useful on Plantations,	176
Oyster Shells, Value of, as a Manure,	427
"    Vegetable, or Salsefy, Description of	429
"    "    Method of cooking,	ib.
P.	
Painting of Machines, Necessity of	185
"    "    Composition for	ib.
Pato de Vaca, Account of	191
Paw-paw, Description of the fruit	286
Pea Husks, Use of	91
"    Chickasaw, Description and properties of	215
"    "    On the substitution of for Clover,	ib.
"    "    Makes excellent Fodder,	ib.
"    "    Method of Cultivating,	ib.
Peas, Lime necessary in the cultivation of	425
"    Beans, Superabundance of Gypsum prevents their boiling soft,	569
"    "    Remedy for	ib.
Pepper, Black, will grow in Florida,	350
Persimmon, Blue, resembles Dates,	286
Pinckney, General Thomas, on substituting the cultivation of other grain in lieu of Rice,	464
Pierce, Charles, on Salt as a Manure,	132
Pine, New species of	331
Pineapples, Preservation of	383
Plants, Influence of the Atmospheric Air on	442
"    Should have the earth made fine near them in their young state,	531
Plantations, Management of	67
Planter of the Middle Country, on the cultivation of Corn,	534
Planters do not attend sufficiently to the smaller objects of Agriculture,	546
"    Depend too much on importations for their supplies,	ib.
"    Should depend more on their own resources,	547
Planting in hills or ridges, Advantages of	442
Plough used for excavating water courses,	478
"    Great advantage of using	529
Plumbs, Distillation from	47
Poinsett, Joel R. on the Schinus and Maneta,	549

	PAGE.
Poisons, Action of, on the vegetable kingdom, - - -	91
Pomeroy, S. W. on Pope's Hand-Thrashing Machine, - - -	277
"    "    On the Corinthian Grape, - - -	312
Pope's Hand-Thrashing Machine, Account of - - -	277
Pork, Quantity exported from the United States, - - -	360
Posts, Setting of, in the ground, - - -	185
Potatoe, Irish, On the cultivation of - - -	225, 280, 415
"    "    Selection of Seed, - - -	226, 280, 416
"    "    Unripe Seed preferred, - - -	226
"    "    Treatment of, for Seed, - - -	227
"    "    Produce tubers earlier than ripe Seed, - - -	ib.
"    "    Succession of, from ripe and unripe setts, - - -	ib.
"    "    From top and bottom, setts - - -	ib.
"    "    Earthed up, produce later, - - -	ib.
"    "    Experiment on removing the large tubers, - - -	228
"    "    Strong heavy loam produces the driest, - - -	415
"    "    Sandy soil produces soft and watery, - - -	416
"    "    Notes on - - -	227, 418
Potatoes, Sweet, Cultivation of - - -	163, 305, 401
"    "    Cotton seed excellent Manure for - - -	163
"    "    Preservation of - - -	164, 453
"    "    Saccharum of - - -	373
"    "    Good substitute for malt, - - -	378
"    "    Will make good Beer, - - -	ib.
"    "    Dried, keep long - - -	ib.
"    "    Useful in making leaven, - - -	ib.
"    "    May be planted among Corn, - - -	401
"    "    Should be planted without cutting, - - -	ib.
"    "    Leather coat, Productiveness of - - -	ib.
Potatoe Onion, Account of - - -	287
Potatoe Vines, Curing of - - -	496
Pounding of Rice, Experiment on - - -	351
Poultry, to cause to lay, - - -	379
Powell, John Hare, on substitutes for Hay, - - -	138
Prangos Hay Plant produces much fodder, - - -	47
Premiums of the Farmers' Society of Barnwell, - - -	283
"    "    Agricultural Society of St. Paul's, - - -	284
"    "    Awarded by the South-Carolina Agricultural Society, - - -	141
"    "    "    St. Helena Island Agricultural Society, - - -	476
Press, Vine, Description of - - -	293
Prince, William, on Pepper and Tea plants, Camphor and Cinnamon trees, - - -	350
"    "    Establishment for Fruit Trees, &c. Account of - - -	538
Pump worked by sails, Plate of - - -	396
"    "    "    Recommended to be used in Gardens, - - -	394

## Q.

Queries and Answers on fine Sea-Island Cottons, - - -	121, 122, 123
"    "    "    "    Culture of Rice, 166, 215, 268, 309, 352, 409, 456, 498	
"    "    "    "    the Culture of the Silk-Worm, - - -	437

## R.

R. A. G. on the Manufacture of Salt, - - -	392, 436
Rails, best to be laid with their heart-wood down, - - -	351
Rats, Wood, Crops of Corn destroyed by - - -	305
Resources of South-Carolina, - - -	17, 359
"    "    the Southern Atlantic States, - - -	58, 434
Report of the Committee on Agriculture, to the House of Representatives, on the Memorial of N. Herbemont, Esq. - - -	43

	PAGE.
Report of the Committee on Agriculture, of the Senate, on the memo- rial of N. Herbemont, Esq. - - - - -	43
Retama, White, Honey obtained from, excellent, - - - - -	383
Review of Seabrook, on fine Sea-Island Cottons, - - - - -	25, 71, 119, 171
Revenue of the United States, Erroneous system of collecting, - - - - -	443
Rice alternated with Cotton, Good effects of - - - - -	60
“ Queries and Answers on the } cultivation of                        } 166, 215, 268, 309, 352, 409, 456, 498	
“ Cultivation of, for Seed, - - - - -	115, 353
“ Seed, Selection of - - - - -	168, 216, 268, 310, 353, 410, 456, 498
“ “ Method of obtaining good, - - - - -	356
“ “ Covering of - - - - -	533
“ Quantity of seed per acre, - - - - -	168, 217, 268, 310, 354, 410, 498
“ Distance of rows apart for planting, - - - - -	168, 217, 268, 310, 354, 410, 498
“ Time of planting, - - - - -	168, 216, 223, 268, 310, 353, 410, 456, 498
“ Method of planting, - - - - -	168, 217, 268, 310, 354, 410, 498
“ Flowing of - - - - -	168, 217, 269, 310, 354, 410, 411, 457, 498
“ Hoeing of - - - - -	168, 218, 269, 310, 354, 410, 547, 498
“ Grass among, destroyed by } water,                                } 168, 218, 269, 310, 354, 355, 411, 457, 500	
“ Product per acre, - - - - -	168, 219, 310, 355, 411, 458, 500
“ Ploughing among, - - - - -	169, 219, 269, 500
“ Land, Keeping up, during winter, - - - - -	169, 219, 269, 311, 355, 411, 500
“ Brackish water, Use of, on Rice fields, - - - - -	220, 269, 412, 500
“ Manured with Lime, - - - - -	169, 220, 269, 311
“ Time of cutting, - - - - -	169, 220, 270, 311, 355, 412, 458, 500
“ Task in harvesting of - - - - -	169, 220, 270, 311, 356, 412, 458, 500
“ Preparation of, for market, - - - - -	356, 412, 500
“ Length of time the water should be kept on, - - - - -	218, 269, 310, 411, 456, 500
“ Experiment in beating, - - - - -	351
“ Machine, Description of - - - - -	425
“ Rough, New trade in - - - - -	460
“ Trade, Report on, to the House of Commons, - - - - -	461
“ Substitution of other grain, Experiment on - - - - -	464
“ Comparison between the profits of, and Barley and Potatoes, - - - - -	467
“ and Cotton, Advantage of planting on the same Plantation, - - - - -	544
“ Wild, of the lakes, Description of - - - - -	285
“ Chinese mode of preserving after being pounded, - - - - -	568
“ Lands, Keeping of, during winter, - - - - -	169, 219, 269, 311, 355, 411, 500
“ “ Observations on the Winter-flowing of - - - - -	532
“ “ Change of crops beneficial, - - - - -	332
“ “ Benefited by the sediment of the tides, - - - - -	532
“ “ Stiff clay, Treatment of - - - - -	534
Rice Planter's observations on Mr. Munnerlyn's answers to Queries on cultivation of Rice, - - - - -	531
Rope, Okra, Account of - - - - -	568
Rose, Hugh, on the cultivation of Rice, - - - - -	167
“ “ “ “ “ Clover, - - - - -	249, 346
“ W. B. on growing Culinary Vegetables, - - - - -	373
Rowand, C. E. on the cultivation of Green Seed Cotton, - - - - -	118
“ “ “ “ “ Slip Potatoes, - - - - -	305
“ “ “ “ “ Rice, - - - - -	352
“ “ “ “ “ Beeting of Rice, - - - - -	351
Russell, Mrs. on the culture of the Silk-Worm, - - - - -	543
Rustic, City, on the Resources of South-Carolina, - - - - -	17, 339
“ “ “ “ “ Pounding of Rice, - - - - -	351
Rye, valuable for ploughing in as Manure, - - - - -	46



	PAGE.
S.	
S.—On the preparation of Castor Oil, . . . . .	301
" " " Cultivation of several Crops, . . . . .	544
Saccharum of Sweet Potatoes, - . . . .	378
Salsafy, Description of . . . . .	428
" Cooking of, - . . . .	ib.
Salt, Influence of, on Vegetation, - . . . .	92
" Use of, as a Manure, - . . . .	132, 319
" Extensively used, - . . . .	320
" Destroys Grub-worms and Ground-mice, - . . . .	133
" Excellent for Corn and Grass-lands, - . . . .	134
" Compost of, with Lime, Ashes, &c. - . . . .	ib.
" Experiment with, as a Manure, - . . . .	135, 320
" Experiments with, should be varied, - . . . .	320
" Experiment on Beans, Onions, Carrots, Parsnips, and Early Potatoes, - . . . .	323
" Manufacture of, by Solar evaporation, . . . . .	393
" Vats, Description of . . . . .	394
" Plate of . . . . .	396
" Process of Manufacturing, - . . . .	395
" Reservoirs might be made on Marsh-land, - . . . .	436
" Might be manufactured in Vats formed of Marsh-mud, - . . . .	437
" Establishments connected with the Farms in the Eastern States, - . . . .	ib.
" " Might be successfully undertaken in the Southern States, - . . . .	438
Sams, B. B. On the Culture of the Sugar Cané, - . . . .	402
Sauerkraut, - . . . .	430
Schinus, or Arbol Peru, grows in the open air near Charleston, - . . . .	549
Seabrook, Whitmarsh B. On Fine Sea-Island } Cottons, Review of }	25, 71, 119, 171
Seabrook's, William, answer to Queries on Cotton, - . . . .	171
Seasons, Account of . . . . .	90, 187, 234
" Peculiarity of . . . . .	408
Secrets of Cotton revealed, - . . . .	164, 298
Seeds, Germination of . . . . .	92
" To restore the Germination of . . . . .	190
" Vital principle of . . . . .	287, 476
" Description of . . . . .	371
" Preservation of . . . . .	372
" Duration of . . . . .	ib.
" May be made to Germinate, by using Oxygenated Muriatic Acid Gass, - . . . .	373
" Also, by using Boiling-water, - . . . .	ib.
" Cotton, choice of . . . . .	31, 76, 165
" Should be changed, - . . . .	32
" Corn, Selection of . . . . .	424
" Mulberry, Sowing of . . . . .	340
Setting a Crop in the Middle County, best method, of doing - . . . .	529
Segars from Spanish Tobacco, Profits of Manufacturing from Leaves grown in Florida, - . . . .	258
" Bad, occasioned by mouldy leaves - . . . .	264
Shaddock, extraordinary flowering of young plants, - . . . .	189
Shrubberies, ought to be planted round Dwelling houses, - . . . .	541
" Would greatly improve their appearances - . . . .	ib.
Silk, Cultivation of, in Sweden, - . . . .	47
" Introduction of, into Georgia, - . . . .	107
" Climate is necessary for the production of good - . . . .	107, 342
" Cultivation of . . . . .	126, 427
" Winding from the Cocoons, - . . . .	131, 386

	PAGE.
Silk, from native Insects, - - - - -	334
" Several crops may be obtained in warm climates in one season, -	345
" Exports from Georgia, - - - - -	385
" Product of, In the South of France, - - - - -	390
" " " In Connecticut, - - - - -	427
" Cultivation of, Should be encouraged by Congress, - - - - -	391
" Excellent, Might be produced in Georgia and South-Carolina, -	ib.
" Establishment, Expense of - - - - -	127
" Filature at Savannah, Account of - - - - -	389
" Sowing, Offered for sale in Cincinnati, Ohio, - - - - -	187
" Worms, Remarks on - - - - -	107, 338
" " Preservation of the health of - - - - -	107, 342
" " Care and feeding of - - - - -	128
" " Preparation for their Spinning, - - - - -	130
" " Management of Cocoons for the production of Eggs, - - - - -	131
" " Yield fine Silk from the native Mulberry Tree, - - - - -	140, 238
" " Introduction of, into Georgia, - - - - -	338
" " Injured by substituting other food for the Mulberry leaves, -	339
" " Introduction of, into Europe, - - - - -	342
" " Houses proper for, Description of - - - - -	343, 543
" " Experiment on rearing in the open air, - - - - -	344
" " Product from - - - - -	ib.
" " Thunder and lightning do not affect - - - - -	346
" " Chinese and Italian, compared, - - - - -	279
" " Rearing of - - - - -	543
" " Note on - - - - -	ib.
Slaughter House recommended to be established near Charleston, -	361
Small, William, on the culture of Rice, - - - - -	456
Smut, Experiments on - - - - -	230
" Is produced by Eel like insects, - - - - -	ib.
" Remedy for - - - - -	ib.
Snuff should be manufactured from the refuse Tobacco, when making	
Segars, - - - - -	264
Soil, Sandy, yields the finest Sea-Island Cotton, - - - - -	120
South-Carolina, Resources of - - - - -	17
Southern Atlantic States, Resources of - - - - -	58, 434
Southern Agricultural Concerns, Reflections on - - - - -	443
" States are indirectly taxed more than their just proportion, -	444
" Effects of the Tariff on - - - - -	448
Spalding, Thomas, on Cotton, Rice, Sugar-Cane, and Grape- } 57, 106, 552	
" " Vines, - - - - -	
" " On the cultivation of Silk, - - - - -	337, 385, 482
" " Legislative patronage, - - - - -	443
Spinage, New-Zealand, Cultivation of - - - - -	560
Spinning Machine, Description of - - - - -	547
Stable Manure compared with Ashes, - - - - -	368
Starr, C. H. On the Peculiarities of the Season, - - - - -	408
Steam Plough, Advantages to be derived from - - - - -	380
Straw, Use of, in Farm-yards, - - - - -	39
" Conversion into Farm-yard Manure, - - - - -	ib.
Strawberry Beds, burning, Advantages of - - - - -	468
" " Method of doing, - - - - -	469
" " Long practiced in South-Carolina, - - - - -	470
" " Experiment on Burning, - - - - -	472, 506
" Plants should be protected from the sun during Summer - - - - -	470
" " May be planted under trees, - - - - -	471
" " Choosing of - - - - -	507
" Wilmot's, superb, Account of - - - - -	569
Steppes, Burning, in Siberia, Account of - - - - -	95
Sugar and Cotton, Profits of, compared, - - - - -	379

	PAGE.
Sugar from Beet-roots, - - - - -	335
“ Manufacture of, improved by the French Chemist, - - -	492
“ Crops made on the Butler Estate, - - - - -	488, 527
“ Cane, Excellent feed for Cattle - - - - -	60, 403, 553
“ “ On the Cultivation of - - - - -	178, 235, 403, 486, 528
“ “ Cultivation of, less laborious than Corn or Cotton, - -	178, 556
“ “ Rice, - - - - -	528
“ “ Product of - - - - -	178, 236
“ “ Will flourish from South-Carolina to Louisiana, - -	179
“ “ Varieties of - - - - -	179, 486
“ “ Method of Planting, - - - - -	180, 235, 403, 554
“ “ Hardier than Corn or Cotton, - - - - -	180, 266
“ “ Mill for Grinding, - - - - -	181, 487
“ “ “ Plate and Description of - - - - -	364
“ “ Manufacturing of - - - - -	181, 554
“ “ Success of experiment of, near Charleston, - - - -	211
“ “ “ “ “ “ In Georgia, - - - - -	266
“ “ Soil best calculated for, - - - - -	212, 235, 553
“ “ Is not liable to disease, - - - - -	236
“ “ Maturity of, retarded by rain, and accelerated by drought, - - - - -	ib.
“ “ Is not injured by a slight frost, - - - - -	ib.
“ “ Profit of, - - - - -	237
“ “ Small quantities may be Manufactured by Planters for their own use - - - - -	256
“ “ Number of Cattle supported per acre by it, - - - -	60, 403
“ “ Cultivation of, for Horse feed, - - - - -	ib.
“ “ Quantity cultivated to the hand, - - - - -	482, 554
“ “ May be cultivated from Charleston to St. Mary's, - -	483
“ “ Is not considered as an impoverisher of land, - - -	488, 553
“ “ Used as fuel in the West Indies, - - - - -	489
“ “ Crushing of, may be effected by Oxen, Tide, or Wind Mills, - - - - -	492
“ “ Disadvantage of using Steam Engines for Crushing, -	493
“ “ Quantity retained for seed in Louisiana, - - - -	553
“ “ Soil improved by the cultivation of - - - - -	ib.
“ “ Should be alternated with other crops, - - - - -	ib.
“ “ Light soils best suited for the cultivation of - - -	ib.
“ “ Alluvion soils produce a superior growth - - - -	ib.
“ “ Ripeness, Method of testing - - - - -	554
“ “ Hydrometer and Thermometer use of, in manufac- turing of - - - - -	ib.
“ “ Boilers for, should be made of thin Copper, - - -	556
“ “ Notes on, - - - - -	182, 212, 267, 439
“ “ Ribband, price per acre for seed, - - - - -	179
“ “ Preferred to any other variety, - - - - -	ib.
“ “ Description of - - - - -	179, 236
“ “ May be raised further North than any other variety, -	236
“ “ Requires a Steam Engine to express the juice, - - -	484, 487
“ “ Cotton, Comparison between - - - - -	237
Sun Flower, value and use of - - - - -	189
“ “ Used for food in Portugal, - - - - -	143

## T.

Tallow Tree, Chinese account of, - - - - -	287
Tariff, effects on the Southern States, - - - - -	448
Tea recommended to be grown in South-Carolina, - - -	18
“ Might become a great staple of South-Carolina, - -	ib.
“ Quantity of, imported into the United States, - - -	ib.
“ High flavour given by the Olea Fragrans and Cameillus, -	ib.
“ Less tender than the Gardenia Florida, - - - - -	350
Tea Plant, Description of - - - - -	18

	PAGE.
Tea Plant grows in the open air near Charleston,	18
Teasels, Quantity of, used in a Factory,	238
Thermometer, Use of, in Manufacturing Sugar,	555
Thrashing Machine, Pope's, Account of	277
Tobacco, Yellow Spanish, recommended to be cultivated,	256
"    "    "    On the cultivation of, by G. J. F. Clarke,	257
"    "    "    Best reaped in early part of Summer,	259
"    "    "    Seed Bed, Management of	ib.
"    "    "    Young Plants should be transplanted in a Nur-	
sery bed,	260
"    "    "    Transplanting, Method of doing	261
"    "    "    Preparation of the lands for	ib.
"    "    "    Nipping off the bud, time of doing,	262
"    "    "    Sweating of, injurious,	ib.
"    "    "    Drying, method of doing,	263
"    "    "    Should be made into Segars as soon as dried,	264
"    "    "    One hand necessary for each acre,	ib.
"    "    "    Worms destructive to, Description of	ib.
"    "    "    Seeds of, do not degenerate in Florida,	265
"    "    "    Value of, per acre, for making into Segars,	ib.
"    "    "    Note on	ib.
Tomatoes, Receipts for Cooking	143
Tree, Marriage, Custom of Planting	355
Trenching of ground,	52
Turnips, dimensions of a large one,	476
V.	
Vancouver, M. on Devonshire Dairies,	376
Vanderhorst, E. on the cultivation of Sea-Island Cotton,	120
Vats, Wine, Description of	290
"    "    "    "    Mr. Defons,	292
"    "    Size of	245, 291
"    "    Preparation of	ib.
Vegetables, On watering, during droughts,	137
"    Grown between beds of Asparagus,	138
"    Culinary, Best method of growing	373
"    On the deterioration of	414
"    Life, Restoration of	430
"    Preservation of, in Germany, for winter use,	431
Vegetation, Effects of light on	509
"    Influence of Water on	511
"    "    Atmospheric air on	442
Vessels for holding Wine, Cleaning and preparation of	290
Vine, Grape, Cultivation of, Its antiquity,	1
"    "    Tradition of its being pruned by an Ass	9
"    "    Causes of the failure in the cultivation of, in South-Carolina,	11
"    "    "    Present success in its cultivation,	ib.
"    "    Should be planted in dry and airy situations	13
"    "    Neighbourhoods of old fields and clearings, proper situa-	
tions for	14
"    "    Thrives best in a light sandy soil,	ib.
"    "    Preparation of land for	50
"    "    Method of Planting,	55
"    "    Work to be done the first year,	36
"    "    Pruning of	56, 100, 146, 195, 196
"    "    Pruning of in France,	193
"    "    Sea coast too moist for	61
"    "    Pine lands well suited for	ib.
"    "    Cuttings, Choice and planting of	98
"    "    Cutting the day-light roots,	100
"    "    Protecting the buds from frost,	146
"    "    Claspers, Suppression of	147



	PAGE.
Vine, Grape, top of the growing shoots objected to, -	148
" " Experiment on training and pruning -	195
" " Successful method of training in South Carolina, -	196, 420
" " " " " New-York, -	420
" " Young shoots injured by frosts, -	197
" " Bleeding of, not very injurious -	ib.
" " Training on Mulberry Trees, -	199
" " From layers, Superior method of raising -	374
" " Training over trees, Method of doing, -	421
" " " " " Necessary for -	ib.
" " Grafting, Successful method of doing, -	ib.
" " " Advantages of -	565
Vines, Potatoo, Curing for Fodder, -	496
" " Make good Fodder, -	ib.
Vintage, Practice of European Vignerons, Respecting -	241
" " Great cleanliness requisite for -	244
" " Precautions to be taken at the time of -	245
Vineyards, Selection of the site, -	13
" " Soil and subsoil nature of -	14
" " Aspect of -	15
" " Product per acre of, N. Herbemont's -	43
" " Preparing the grounds for planting -	50
" " Value of, in France, -	53
" " Product of -	54
" " Method of planting -	55
" " Care and culture necessary for -	98
" " Profit of -	237

## W.

Washington, William, Queries on the culture of Rice, -	166
Water, Influence upon Vegetation, -	511
" " Manner of acting on the organs of Plants, -	512
" " Effect on leaves, -	513
" " Holds in solution the nourishment of Plants, -	514
" " Forms the basis of sap, -	515
" " Is decomposed in the leaves of Vegetables, -	ib.
Watering Vegetables, Injurious effects of, in dry weather, -	137
" " Best method of performing, -	ib.
Watson, A. on the culture of Rice, -	268
Wax Tree recommended to be planted in England, -	91
Weavels, To destroy -	94
Wheat, Change of seed recommended, -	281
" " For seed should be cut before ripe, -	282
Whiskey from Cotton seed, Account of -	238
Wilson, William, on the cultivation of Irish Potatoes, -	414
" " " " " the Grape Vine, -	420
Wine, Mixing of Grapes, for making condemned -	142
" " Kinds produced by different Grapes, -	ib.
" " Cleanliness requisite in making -	242
" " Vats, Size of -	245, 291
" " Making of -	246
" " Preparation of vessels for -	289
" " Press for -	293
" " Miscellaneous observations on -	295
" " Adding strength to -	296
" " Quantity of Sugar in, Instruments to test -	ib.
Wolf in Cattle, Queries respecting -	170
" " Answer to Queries, -	365
Worms, Tobacco, Description of -	264
" " " Turkeys will destroy -	255
Woodside, on the want of information in Gardening, -	539
X. Y. on the cultivation of reclaimed Salt Marsh, -	20